

1905

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Sixteenth Annual Report

OF THE

STATE BOARD OF HEALTH  
OF FLORIDA

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JACKSONVILLE, FLORIDA

FEBRUARY 15, 1905

The Drew Press, Jacksonville

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LETTER OF TRANSMITTAL.

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Jacksonville, Fla., Feb. 15, 1905.

*To His Excellency, Napoleon B. Broward,*

*Governor of Florida,*

*Tallahassee, Fla.*

DEAR SIR:—

It is with more than usual pleasure that I enclose you the annual report of the State Health Officer for 1904; a gratification which my colleague wishes to express with me by commending to your attention a most excellent work done by the State Health Department, in the personal health interests of the people, as also in a skillful and careful supervision of all contagious diseases occurring in the State, in the human family and in the brute creation, which when unrestricted are always likely to cause uneasiness among the people, or to perhaps interfere with business or commerce of the State. This presentation of facts we feel will be acceptable to you, because having quite recently been a member of the State Board of Health, you can the more keenly appreciate the many difficulties which the Board has met with in the discharge of its obligations to the people, as well as the economical management which has marked its administration. We are confident that the latter *has been* economical, for while smallpox has been constantly introduced into the State, especially into the northern border counties, and the number of cases has been larger than in any previous year, yet the expense attending the care and treatment of them has been smaller and the supervision as efficiently made. While the number of ill persons in the State seems to have been larger than in previous years, yet as pointed out by the State Health Officer, this increase in sickness has been altogether due to dengue, a distressing and painful but never fatal disorder, and to smallpox, which latter trouble can be prevented whenever the

representatives of the people in their legislative capacity see fit to enact measures to control it. Moreover, it is pleasing to note that the mortality statistics received by the Board do not show any increase in proportion to ratio of population, which is constantly enlarging. We concur in the timely suggestion of the State Health Officer that the annual report of 1903, which was made *ad interim* of the Legislature shall be submitted with his report of this year, because it contains a detailed statement of many important facts and recommendations in furtherance of the progressive sanitary work of the Board which must, if carefully read, create an interest in measures of preventive medicine which the Board aims to place in practical operation among the people, and which if more than casually alluded to again would be an unnecessary presentation of already discussed subjects. Yet it would seem that propositions which have a decided bearing upon disease prevention, and life saving, would never be tiresome to consider and would ever command and receive thoughtful attention. In preventing two of the most dangerous and communicable diseases of contagious type, the State Health Officer speaks of the wonderful specific properties of antitoxin in both preventing and curing diphtheria, and of vaccination as the only means known at the present time to effectually provide against smallpox, either in isolated cases or in epidemic prevalence. We heartily concur in the opinion expressed by the State Health Officer, that when the people generally will learn to appreciate the value which the discovery of these two remedies have been to the human race, and will heed the advice of those whose experience and knowledge peculiarly fits them to offer, by cheerfully and universally adopting their use, then there will be few sorrowing mothers on account of diphtheria and no disfigured men and women, because smallpox can be made to be as obsolete a disease in the future as yellow fever bids fair to be now. It does seem to be an unfair burden of expense upon the State, that, because of a prejudice which is as unreasonable as it is foolish and

against which statistics can be brought in convincing array of facts and figures if objections can be overcome by argument, an expenditure of public funds should be made obligatory on the Board in caring for smallpox cases, when vaccination will prevent an attack and stamp out a threatened spread. This conclusion finds greater force of argument when it is learned that fully ninety-five per cent of the cases of smallpox which occurred in Florida in 1904, were among the negro population, who, migratory in character, contribute nothing to the revenue of the State by acquiring property and from whom the remaining five per cent of the whites contracted the disease.

We not only thoroughly endorse the views of the State Health Officer as to an existing necessity for a compulsory vaccination law of limited proportions and requirements, but earnestly request of your excellency the influence of your own strong personality and office to bring about such an enactment of law by which the State may be rid of the pest, as an extended prevalence, and the cases of smallpox reduced to a minimum number. The disease, however, mild in character, creates uneasiness among the whites whenever and wherever it appears, from its loathsome nature and the disfigurement which generally follows. Discomfort from any sickness with attendant expense should not be permitted, much less encouraged, by yielding to ignorance and prejudice.

We also approve of the suggestions of the State Health Officer to confirm the rules and regulations of the State Board of Health as statutory enactments, and we agree with his reasoning that there will be less likelihood of contention as to the legality of enforcement of these rules and regulations if sanctioned by the Legislature. They are but few in number as compared with the regulations adopted at the organization of the Board in 1889, and in their condensed form present the salient features of conservative sanitary administration. They contain nothing that might be objected to by the most sensitive guardian of the personal liberty of the citizen,



and on the contrary, it is thought, comprise useful instruction in, and requirements for, healthful living and profitable sanitation.

It is gratifying to confirm the opinions expressed in the last annual report of the Board, respecting the anticipated usefulness of the bacteriological laboratory. This division of the Board's operations has been kept actively engaged during the year, and has assisted the physicians of the State, and through them, the people, in early arriving at diagnosis of doubtful cases of disease, affording an early opportunity to apply prompt remedies or preventive measures. The report of Dr. Andrade, the bacteriologist of the Board, which is included in the report of the State Health Officer shows a directorship of this branch of the work intelligent in tone and scientific in management. It is commended for careful reading and study, being both interesting and instructive. There are other topics connected with health matters, which are referred to by the State Health Officer in detail in his interesting account of the sanitary happenings of the year, such as the care exercised over, and the treatment of contagious disorders among domestic animals, and especially of the management of outbreaks of glanders among horses in different portions of the State by the State Board of Health through the veterinary surgeon of the Board, a position authorized at the annual meeting of 1904; licensing persons to engage in the business of embalming the dead for transportation who show a fair degree of knowledge of the subject; seeking to control pulmonary tuberculosis and to lessen the danger of infection by prohibiting promiscuous expectoration on sidewalks, floors and walls of public buildings, and in public conveyances; looking after the sanitation of public conveyances, and noting the construction of additional isolation hospitals for seclusion and economical treatment of smallpox, at Pensacola and Miami, which are attractive subjects to speak on, but it is thought that the State Health Officer has so entertainingly pointed out the commendable qualities of each that I feel it to be merely

necessary to invite consideration of them to receive proper and responsive attention.

With the ending of the present session of the Board, my colleague and myself practically complete our term of office for four years, for which we were appointed by Governor Jennings. At present there are but two members of the State Board of Health, as the vacancy caused by your election as Governor has not as yet been filled.

In your elevation and election to the highest gift at the hands of the people, of a sovereign State, my colleague, the State Health Officer and myself feel that the State Board of Health has been signally honored by the people of Florida in having one of its members while yet in active connection with the Board, preferred for the office of Chief Executive of the State by a very flattering vote of confidence. The election of Hon. James P. Taliaferro for his first term as United States Senator from Florida is another instance where a citizen of the State and actively exercising the duties of membership in the State Board of Health, has been selected by the people to a high office in the administrative counsels of the State.

In conclusion, it is gratifying, indeed, to note that the people generally appreciate the efforts of the State Board of Health in their behalf, especially and uniformly showing perfect confidence in Dr. Joseph Y. Porter, the executive officer of the Board.

Very respectfully,

E. M. HENDRY,

*President State Board of Health.*

Jacksonville, Fla., Feb. 14, 1905.

*To the President and Members of the State Board of Health of Florida:*

Herewith is presented for your consideration, and it is hoped also for your approval, a brief and concise statement of the transactions of the executive office of the Board for 1904, together with a narrative of such happenings in the sanitary work of the year as may be interesting in general to the people of the State, and explanatory as well of the objects sought to be attained by the Board, in the prevention and suppression of agencies and influences which when unheeded bring ill health and disease both to the individual and to communities.

Much which could be said with profit to all readers, in behalf of preventive medicine, a subject which all boards of health are teachers and exponents of, has already been dwelt upon in previous reports, and while the theme is pleasing to discuss and interesting and profitable to consider, yet it is felt that if a report of this character is read at all by the people and especially by the legislative branch of the State Government,—and it is the ear and attention of these representative citizens of the State whom it is desired to reach—brevity and conciseness must commend and bespeak attention, rather than a discussion of subjects more particularly of interest and concern to the sanitist; and yet, there should be no legislation contemplated or suggested, of more importance for Legislators to consider than that which will improve the health conditions of a people, suppress disease, lessen sickness and prolong the usefulness of life to at least the Biblical promise of three score and ten years.

As the State Government begins with this year in a new administration, with the inauguration of Governor Broward as the State's Executive, and both branches of the Legislative power have largely new members in each body, perhaps unacquainted with the sanitary requirements of the State, it may not be amiss nor will it, it is thought, invite tiresome reading, to request of those not familiar with the purposes of the State Board of Health, and what it has accomplished, to acquaint themselves with the Board's work in the past; by scanning, if not by more closely studying, the annual reports of the Board and especially the report of last year, 1903, where several subjects bearing upon important matters affecting the hygienic welfare of the people were presented somewhat in detail.

The general health conditions of the State during 1904, can hardly be said to have attained that excellence which was enjoyed in the preceding years, although the fatalities from all sources, sickness as well as accidents is not increased over those reported in former years. Dengue, smallpox and diphtheria contributed to an increase in the sick rate, and although the mortality in two—smallpox and diphtheria—were small, and none at all in dengue, yet the number sick, with consequent expense, to say nothing of loss of time and absence from daily vocations, conduced materially to the uneasiness of the people and personal discomfort of the individual.

The record of the executive office for the year 1904, gives the total number of births occurring in the State as 7,454, and deaths from all causes, as 3,898. A birth rate per thousand of population of 14.10, and a death rate of 7.42 for the same number. There were 8,465 marriages in 1904. An analysis of the vital statistical tables, elsewhere given in this report, shows that of the births reported, 4,533 were white and 2,921 were of the African race and descent. Of the death returns obtained by the Board, 2,257 were white and 1,641 were colored, 2,177 males and 1,721 females. In the tables alluded to may be found the ages of the decedents, as well as the causes

General  
health  
conditions

Birth and  
death rate



of death. These figures cannot be said to be indisputably or entirely accurate, nor is it so contended, for the reason that it is not presumed that every birth or every death occurring in the State, especially in the rural districts, has been reported to the Board; such a condition of statistical accuracy does not occur in any State, but it may be stated that a fair degree of correctness as regards the life-wave of the State is represented, and that for practical purposes in determining the healthfulness of this section of the United States, the Board has obtained all that can be reasonably expected in the way of vital statistical recording, at least, until thorough, persistent and unrelaxing efforts of educational teaching in this direction, the importance of prompt and carefully prepared reports of births and deaths, and of all other matters relating to the collection of vital statistics is fully appreciated and followed both by physicians and others having management of institutions from which such information is expected and desired.

Vital  
statistics

At the last annual meeting of the Board a new system for collecting vital statistics, recommended by a joint committee from the American Medical Association, and the American Public Health Association, concurred in, and approved of by the United States Census Bureau, was authorized for Florida, by specific rules detailing the methods to be followed, and the State Health Officer immediately took steps to place the same in operation. The delays incident to formulating and printing blank forms, obtaining consent of physicians to act as registrars in forwarding returns of births and deaths to the Board, with other numerous difficulties encountered in the execution of the plan, all served to impede progress, and finally as the year passed along and the system had not been commenced, it was determined that the beginning of the year 1905 should be set as the date when the machinery of this new method for gathering into accurate record the vital statistics of the State might be started, and then it was hoped that the arrangements would be so nicely perfected that each section and county of the State would

contribute evenly and correctly the births and deaths as they might occur. The purpose is to have not only a set of records—births and deaths—at the office of the Board in Jacksonville, but also at each of the county sites, for the convenience and possible use of the citizens of the county from which such statistics are collected. The Board will pay ten cents for each birth and death reported, and will furnish free of charge, blanks and other needful stationery upon which to make records. This remuneration may appear small, but at the end of the year, will amount to quite a respectable sum, and is as much as the Board can afford at this time to offer, or to assume the expense of, without further legislative sanction. The success of the plan and of the value of the reports obtained will depend entirely upon accurate reports and the cooperation given by physicians, especially in the country and sparsely settled communities, by prompt and carefully prepared returns of every birth and death, not only occurring in the practice of each, but within their personal knowledge. There have always been some physicians in the State who have observed this obligation,—for it is a duty to the commonwealth,—as religiously as they did any other important responsibility as a citizen, but there have also been others and, it is mentioned with regret and reluctance, who have opposed and antagonized every effort made in behalf of this needed requirement to obtain information respecting the growth of the State, and seemingly have defied the State statute on the subject, by either indifference or determined opposition. The State Health Officer has hitherto refused to advise prosecution for a negligence of this character, although the opposition appeared to be due to a perverse disposition and had not any reasonable grounds for excuse, because of his unwillingness to have the Board enter into judicial proceedings against any one of his professional brethren, preferring that a patriotic sense of citizenship should awaken and prompt a performance of duty, which tended to secure valuable knowledge for future generations, rather than to seek

Physicians  
asked to  
report births  
and deaths

Enforcement  
of rule to  
report births  
and deaths

to obtain the information by the constraint of law, particularly, when heretofore a service was requested which was not compensated for. Now, however, as it is proposed to pay for this service to the State, which although small in amount, yet defrays any outlay of money on the part of those making these reports, the legislature will be asked to enact the rule of the Board respecting vital statistics into a State statute and provide for a proper observance of the same. However, unpleasant the enforcement of the law may be, it is thought that professional sentiment should no longer stand in the way of a measure calculated to increase the reputation of the State. Sanitarians everywhere, and those engaged in the study of questions of social and political economy, recognize more and more the value of accurate statistics respecting the life, death, and general conditions of health which effect the human family. State Boards of Health having a vital statistical bureau, which is carefully administered and reports to which can be depended upon for correctness and reliability, are considered progressive in thought and in sanitary work. They are credited with being mindful of the needs of the people in seeking to determine the movement of population as well as the contributing causes of sickness and death, for, from carefully compiled data of several years, conclusions can be deduced, and better yet, measures may be suggested for the betterment of the living and the prolongation of life. Florida must be in the list of Registration States of the Union, and the State Board of Health will use every effort and energy to earn a prominent position for correct and reliable statistical returns. It is to be regretted that the executive office has been unable to institute the system for collection of morbidity statistics of the State which was authorized by the Board at the February meeting of last year. The importance of this measure was gone into quite in detail in the last annual report from this office, and it was confidently expected during the year to make an effort in behalf of the system, but so much difficulty was

experienced in establishing the companion system—vital statistics,—which really did not finally commence operations until January of this year, that it was thought if two systems, somewhat similar in purpose, were commenced at the same time, that confusion would result and perhaps defeat the workings of both. So likewise can be explained the failure to reestablish the "Florida Health Notes," a publication previously edited by the Board in years past in behalf of the sanitary interest of the State. It was found that to properly and interestingly present this pamphlet each month to the people of Florida, additional assistance in the way of clerical help would be required, as the time of the other assistants in the executive office, was well taken up in attending to special duties which could not be laid aside even for a day, and it was not deemed advisable to incur the expense which another clerk would occasion. However, the two subjects alluded to—morbidity statistics, and the "Florida Health Notes"—may be considered as having been simply deferred and not abandoned, for the importance of both to the State has been widely argued and insisted upon, to be altogether given up.

Florida  
health notes

The following reports from special and county sanitary agents, city physicians, and other friends of the Board, who are interested in the work and cause of sanitation in the State, gives an intelligent idea of the health conditions existing in the different sections, during the past year, with other pleasing and eventful data. Especially are the reports from the special agents valuable and instructive in matters relating to contagious diseases.

Reports of  
special  
agents



## SPECIAL AGENTS' REPORT.

DR. R. F. GODARD.

Special  
Agents  
report

I have the honor herewith to present an annual report of my work during 1904, which has been principally, in dealing with smallpox, in the different sections of the State. During the time I have been connected with the State Board of Health I have been directed to investigate twenty-one reports of smallpox and two reports of diphtheria. As a result I found in those several instances smallpox in seventeen different sections and chickenpox in three. One other was for the purpose of confirming my former diagnosis of chickenpox at Mayo, Lafayette County, Fla.

I have also attended two epidemics of diphtheria pursuant to instructions. By persistent work and at times force, I have vaccinated about 1,450 persons during this year. How many proved successful, I am not able to say, but there is one fact in this connection I am prepared to state positively, that I have not had a single "bad arm" to follow these vaccinations.

I respectfully direct your attention to the following tabulated table, which shows the counties in which I have worked, the disease found, number of cases to develop, source of infection, and fatalities:

COUNTY.	DISEASES.	NO. OF CASES.	ORIGIN OR SOURCE OF INFECTION.	DEATH.	REMARKS.
Gadsden	Smallpox	48	Georgia	2	
Leon	Chickenpox				
Jackson	Smallpox	9	Georgia		
Walton	Smallpox	1	Alabama		
Washington	Smallpox	27	Georgia		
Gadsden	Smallpox	4	Georgia		
Washington	Smallpox	6	Georgia		
Columbia	Smallpox	50	Jacksonville		
Suwanee	Smallpox		Florida	1	
Columbia	Smallpox	1	Florida		
LaFayette	Chickenpox				
Walton	Smallpox	13	Florida		
LaFayette					
Walton	Smallpox	1	Alabama	1	
Alachua	Diphtheria	9	Not known		
Hillsboro	Diphtheria	21	Key West	1	
Walton	Smallpox	3	Alabama		
Jefferson	Smallpox	50	Georgia	2	
Gadsden	Smallpox	1	Florida		
Jackson	Smallpox	95	Dothan, Ala.	2	Under observation now.
Walton	Smallpox	17	Florala, Ala.		Under observation now.
Gadsden	Chickenpox				
Jefferson	Smallpox	47	Georgia	1	Under observation now.

Smallpox and  
Diphtheria

You will note that during the year, I have attended 380 cases of smallpox, with a loss of 9 by death, also that I have treated 30 cases of diphtheria of which number I lost by death three. In the greater number of instances the source of these several prevalences has been brought from the adjoining States and have not had their origin in Florida. Seven occurrences were traced to Georgia, five to Alabama, and five out of the total of 17 could not be traced. We stand sadly in need of two important measures in our line of work in Florida. One of these is the cooperation of adjoining States: the other is a compulsory vaccination act in the State of Florida. To a lack of the first we may safely attribute all the smallpox which I have had to contend with during the year 1904. To a want of the second we have all classes of laboring people, whites as well as blacks, flocking from one public work to another of the State carrying the infection of smallpox simply to evade a possibility of being vaccinated by a health officer, we cannot hope to successfully protect Florida from these epidemics of smallpox when Georgia and Alabama treat it so lightly and when we have no way of compelling the laboring classes to be vaccinated.

Sources of  
infection

Smallpox  
Gadsden  
County

The following is a detailed account of the respective investigation which I have been directed to make during the year: Gadsden County, February 23d, was directed to take charge of the smallpox situation in Gadsden County; after several days of long drives and very faithful investigations I succeeding in locating the cases from the rumors which were then prevalent in the county. Smallpox was reported near Henson, Fla., a station on the Georgia, Florida & Atlanta Railroad, and after investigating I found four (4) cases all of whom were negroes. The infection was directly imported from Decatur County, Ga.

In visiting Concord, Fla., I found eighteen (18) cases. All of these were in two colored families who had brought the infection from Decatur County, Ga. Within the next few days I investigated a report that

smallpox was prevalent in the vicinity north of Branchville P. O. On investigation I found two colored, each with smallpox. There were four (4) cases in one family, one of whom had just died that morning of confluent smallpox. This negro was a healthy man about fifty years old and who had never been vaccinated, and in the other family there were ten (10) to develop, one of whom died. The one who died was an old negro man, eighty-four years old, who had been successfully vaccinated when a boy, and bore the scar at his death. In each of the above foci the infected families were quarantined and all neighboring families vaccinated.

On March 13th, 1904, a case of smallpox was found in Quincy, by Dr. J. H. Wills. This case was the wife of a negro preacher, who lived in a building in the most thickly settled part of town known as "Rotton Row." The front end of the building was occupied by a negro who conducted a restaurant and general boarding house for negroes and it was frequented by hundred of them daily. At the time the case was found there was eleven negroes residing in the building, none of whom had ever been vaccinated, but who had been exposed to the case daily for a week and a half. They were all quarantined and vaccinated. As the vaccinations would "take" each one was discharged after a thorough disinfection. There was not a member of this number to develop smallpox, although after as well as before vaccination they remained in the house with the case. This infection was also traced to Decatur County, Ga., as a source. During the latter part of March, I was told of a few cases of smallpox near Midway, a station on the Seaboard Air Line Railroad, east of Quincy. On investigation I found two (2) in a negro family, who had lately moved to that place from Decatur County, Ga., at which place one of the family had died of smallpox.

Smallpox  
Quincy

About the 4th of April, Dr. B. F. Barnes, of Chatahoochee, Fla., reported a case of smallpox which he had found near River Junction. It was in the person of a negro who had recently come from Fernandina, Fla.

Smallpox  
River  
Junction



There were six other members of his family, all of whom I vaccinated and was delighted on the sixth day to see beautiful "take" in all except one. This one was the negro's wife and who was then in the eruption stage of smallpox. This suggests that vaccination will prevent smallpox as a rule any time after exposure or during exposure, provided it is done at least *six days* before the *initial fever of the eruption*.

On April 24th, 1904, Dr. B. F. Barnes, of Chattahoochee, Fla., again reported a case of smallpox near River Junction, and I went down to look over the situation, there were nine in the family, all of whom we vaccinated; the vaccination proved successful in all but three cases; these three (3) developed smallpox at once. This infection was traced to the neighboring family who had just been suffering of smallpox.

It will be seen that Gadsden County was not without smallpox from January to May 26th, 1904, at which time I discharged the last case in that county. On May 27th, 1904, I went to Concord again to investigate a rumor of smallpox in that vicinity. I found that there had been four (4) cases in a colored family, on Mr. Pat Walsh's plantation, the negro who first erupted contracted the contagion in Decatur County, Ga. All of these cases, his family, had completed the stage of desquamation several days previous to my visit, so after a thorough cleaning out and fumigating I discharged the patients. From the above it will be noted that Gadsden County, developed ten different foci of the contagion, and each was traced to Decatur County, Ga., with one exception, which was from Fernandina, Fla. In all there were forty-eight (48) cases of smallpox to develop in this county during the five months.

Smallpox  
Leon County

Leon County, April 7th, 1904, I was directed to proceed to Tallahassee, and investigate a suspicious eruptive disease. I found a case of chickenpox on Mr. Thos. Hill's plantation twelve miles north of Tallahassee.

Smallpox  
Jackson  
County

Jackson County, April 23, 1904, I was directed to Marianna to investigate a reported case of smallpox. I

found two cases at Grand Ridge, a station on the Louisville & Nashville Railroad, east of Marianna; these cases were in one of the most respectable white families in the town, and on account of the diagnosis being obscure there were numerous exposures to this contagion. This was an instance of smallpox, being called "complicated malarial fever." I vaccinated all who had been exposed, about thirty-five (35) in number and ordered strict isolation. In this family where five children who developed the contagion in regular order, two other cases developed in another family who had been exposed, but they were promptly isolated and prevented a further spread. This infection was brought from South Georgia by a negro who was employed by the white family who first developed smallpox. This prevalence resulted in nine (9) cases and I was able to discharge the situation on May 26th, 1904.

In this connection I wish to mention the case of Mr. Walter S., who was vaccinated by me and on the eighth day his vaccination gave or caused a considerable rise of temperature, after two days, intermission he developed another fever which rendered him unconscious for two days and nights. On the fourth day of his last rise of temperature he developed three papules one of which was on the inner side of his left index finger, the other two on his left hip. They developed normally into the full grown smallpox pustules on the sixth day. This seems to suggest that, although the vaccination did not prevent the attack, it did absorb the eruption almost entirely.

Special case

Walton County, April 27th, 1904, I was directed to Freeport, Fla., to investigate a suspicious case of an eruptive nature. I found one case of smallpox in the person of a negro who had contracted the contagion in South Alabama, and had come home to Freeport to suffer the consequences at his father's home. He had been carefully isolated in an out house, and had not been the means of exposing to any one except his family. There were ten in the family, all of whom I vaccinated,

Smallpox  
Walton  
County

and gave definite instructions as to the care for the cases, and necessary disinfection afterwards. The instructions were obeyed, and no other cases followed.

Smallpox  
Washington  
County

On May 21, 1904, I was directed to go to Vernon, Fla., eighteen miles south of Chipley, and investigate a report of several cases of smallpox at that place. I found that smallpox had been prevalent in the town among the white people for sometime. It had been imported from Southeast Georgia, during the first week in February, 1904, by a white man. This person was boarding at one of the hotels in Vernon, and was attended by one of the local physicians, who pronounced it "swinepox." There were nine cases to develop in the hotel and from there it spread all over town. It became general, and on account of the physician above mentioned contending that it was not variola it was no easy matter to suppress. After a house to house vaccination I learned that there had been twenty-seven (27) cases to develop in the town, two of which was then in active progress. I vaccinated a number of people, and ordered a thorough fumigation of all the infected residences. After isolating the cases then present and giving instructions as to the care of them, I left the situation. At the urgent request of Solicitor Walter Kehoe and Judge Parkhill, I notified the court of the situation, and assured them that it would be perfectly safe to hold court at Vernon at the regular time appointed, which was nearly two weeks distant, and as a result of the assurance of safety, court was held at the regular time.

On January 9, 1904, I was directed to go to Vernon again, and note the situation in regard to smallpox. I found on my arrival that five (5) new cases had developed from exposure to infected residences, which had not been carefully fumigated the month previous. All of these cases were isolated and being cared for, so I instructed them as to vigilance and the care which was necessary.

I wish to state in this connection that the only infection remaining was "monopolized" by one of the local physicians, who says that he came as near dying of "smallpox" as he cares to. On this last trip to Vernon, I vaccinated quite a number of white people and a few negroes. All of the cases at Vernon were among the whites.

On June 15, 1904, I was directed to leave Vernon, and proceed to Benton, Fla., and take charge of a case of smallpox reported at that place by Dr. D. Cone. On investigation I found that the case mentioned was that of the superintendent of the East Coast Lumber Company's Camp, which was located about twenty-two miles north of Lake City, and five miles north of Benton, Fla. I found that smallpox had been imported into this camp on December 26, 1903, from Jacksonville, Fla., by a negro. About two hundred employees were engaged in this camp, and among them were about fifty (50) who had suffered of the contagion since it had been imported. Quite a number had already had it previous to this epidemic, and nearly all the whites had been successfully vaccinated. At this time there was only one case on hand which had begun to desquamate, and four (4) others just well of it. I immediately ordered sulphur from Lake City and began vaccinating all who had not had smallpox. When the sulphur arrived I had it issued out and had every house, car and shanty fumigated. Through the courtesy of Mr. S. A. Nixon, the superintendent, and his bookkeeper, Mr. King, I had a cooperation in this camp that was extremely gratifying. I had a "pesthouse" set apart and the one case was isolated in this until he recovered. Up to January 26th, there had not been another case to develop, therefore I had no hesitancy in discharging the situation.

On June 30, 1904, I was ordered to Live Oak, and at that place I found that the cases which were creating the excitement were in the vicinity of Hildrith, Fla., about thirty miles south of Live Oak. On investigation I found two white families with smallpox

Smallpox  
Columbia  
County

Smallpox  
Suwanee  
County



living together, and numbering in all seven (7). They were residing on the plantation of Mr. Collins, about two miles south of Hildrith, Fla. Three of those were convalescing and all the rest were fully broken out from four to six days previous to my visit. The last one to develop the contagion was the youngest child of the family, who was one and a half years old. The type was extremely grave, not to be "confluent," and on the eleventh day she died of the attack. The child's father had contracted the infection in a negro camp near by at a phosphate plant; in this camp a negro had died of it, and it had been diagnosed by Dr. Hiram Byrd some weeks previously. I finally discharged the situation on January 13, 1904, after having attended the seven cases. All were among whites.

On July 6, 1904, I investigated a report of smallpox on Mr. D. H. Herlong's plantation, near Tolin P. O. I found a negro suffering of smallpox, but had not exposed any other except his wife. I vaccinated all the negroes on the plantation and several white people after quarantining the case with his wife. Later I saw the negro, who reported no spread. His house was fumigated and cleaned up later.

On July 9, 1904, I was instructed to go from Fort White to Mayo, and investigate an "outbreak" of a contagious nature at that place. After having looked the situation over thoroughly and examined the cases in question I found it to be chickenpox. From here I immediately returned to Fort White.

On July 15, 1904, pursuant to instructions I went to DeFuniak Springs to take charge of the occurrence of smallpox at that place. I found that smallpox was prevalent in the east side of the town, and had not been diagnosed until seen by the mayor, Dr. G. P. Henry. It had been imported from Alabama by way of Dorcus, Fla., about May 1st, 1904. While here I vaccinated quite a number and quarantined and attended all five of the families who were suffering of smallpox. For several weeks I had to furnish four families with all

Smallpox  
LaFayette  
County

Walton and  
LaFayette  
Counties again

the necessities of life, and as a result the care of these cases was very expensive. On August 23, 1904, I finally discharged the situation after having treated thirteen (13) in all (all white), at DeFuniak Springs. I am under obligations to the mayor, Dr. G. P. Henry, and also Dr. C. A. Landrum for their energetic cooperation and assistance while I was engaged in this work.

On July 23, 1904, pursuant to directions, I returned to Mayo, Fla., in order that I might confirm my diagnosis. On my return I found no cause to change my decision in the matter, and I immediately returned to DeFuniak Springs where I was engaged at that time.

On August 15, 1904, I went to Laurel Hill, Fla., eleven miles southwest of Florala, Ala., to investigate a reported case of smallpox in that vicinity. I ascertained that on July 27th a negro tramp came into Gensburg's turpentine camp and died of confluent smallpox on the night of the 28th of July, 1904. Mr. Gensburg exercised exceptional judgment in having the negro buried by the vaccinated men and the house in which he died thoroughly cleaned out and fumigated, thus preventing any further spread of the smallpox in that vicinity.

On September 3, 1904, I was directed to go to Gainesville, Fla., and take charge of diphtheria which was then prevalent in "Munteacha" settlement. In this community I found four (4) families in which the infection had gained a foothold. There were nine (9) cases to develop, two (2) of which resulted fatally. It would be unjust not to mention Dr. J. C. Colsons' able management of the cases which recovered before my arrival by the use of antitoxin with remarkable success. Had the two fatal cases been seen by a physician and treated earlier I am sure the result would have been different. I adopted strict quarantine measures with these families, and had no further spread of the infection. On September 18, 1904, I was able to discharge the situation after the recovery of all the cases, and a thorough disinfection and fumigation of the infected

Diphtheria  
Alachua  
County

residences. It was impossible to trace the source of this infection.

Diphtheria  
Hillsboro  
County

On September 10, 1904, I was directed to go to Tarpon Springs, and take charge of the diphtheria situation in that town, which had at that time assumed threatening proportion. On investigation I found eight families in which the infection was prevalent. In the eight families there were twenty-one (21) cases of diphtheria at that time. I quarantined the residences in which the infection was found and proceeded to treat the cases. On the third day I had all under good control except five (5) who appeared to be hopeless. Four of them were white children, and one a colored child. In the treatment of these I used antitoxin heretically, and was successful in all except the case of the colored child. On September 23, 1904, the situation was such that I had no hesitation in discharging it after the proper disinfection and fumigation of all residences. In this occurrence it was plainly demonstrated to me that without a thorough disinfection and fumigation after cases of diphtheria it remains as dangerous as any contagion or infection with which we have to deal. It was easy to trace the source of this infection to Key West, Fla., from which it had been imported early in the spring. I cannot speak in terms too high of the able management of this outbreak by Drs. J. E. Douglass and A. P. Albough, of Tarpon Springs, Fla. I greatly appreciated the cooperation and assistance rendered me by them while in charge of the situation myself.

Smallpox  
Alabama line

On September 28, 1904, I was instructed to go to Florala, Ala., and investigate a reported "outbreak" of smallpox at Paxton, Fla., which place is located one and a half miles below the Alabama and Florida line, opposite Florala, Ala. On investigation I found that smallpox had been prevalent at Florala and adjoining vicinity for several months, and that the infection had spread from there down and across the line into Paxton, Fla. In the Florala Saw Mill Company's quarters at Paxton, I found three (3) cases just complet-

ing the stage of desquamation and, as it had been over two weeks since there had been a case to develop, I disinfected all the infected residences and discharged the situation. At this place all the negroes had either been vaccinated or had suffered of the contagion, therefore it was plain that new material had to be imported before a new outbreak was imminent. Also that Florala could furnish the infection for any new material. While here I respectfully called the attention of the State Health Officer of Alabama to the smallpox situation at Florala.

On October 3, 1904, I was directed to Monticello to take charge of the smallpox situation in that county. It had been prevalent in Jefferson County for several months, and at this time had assumed immense proportions and had swept over the entire northern part of the county. Negroes furnished the principal number of the cases. While dealing with the situation it was necessary to devote a great deal of time to vaccinating ahead of the outbreak. This policy was adopted immediately. While in attendance on this situation I had exactly fifty (50) cases to develop in three separate and distinct communities. Of this number two (2) died of the confluent type. On November 21, 1904, I discharged the situation, feeling safe in so doing on account of having vaccinated about all the probable smallpox material. The number vaccinated during this epidemic was at least four hundred. The source of the contagion was traced to Georgia.

Smallpox  
Jefferson  
County

On October 11, 1904, I was instructed to proceed to Quincy, and assume charge of a case of smallpox near that place. On my arrival I found one (1) case of smallpox on one of the tobacco plantations five miles north of the town. The negro had undoubtedly contracted the contagion in Jefferson County, where he had been some days previous to his initial symptoms. This patient lived in one of the houses of a "quarter," numbering about fifty in all. He had freely associated with all who had resided in the "quarters," therefore it was necessary to vaccinate all who could be found. I spent



several days at this work, keeping the patient guarded, and expecting other cases to develop; especially did I expect his wife to contract smallpox, but my vaccinations were effective and prevented other cases developing. On October 21, 1904, I discharged the situation, and have not had any further trouble in that vicinity.

Smallpox  
Jackson  
County

On October 20, 1904, I was directed to leave Quincy, and go to Marianna to take charge of the smallpox situation prevailing in the northeastern part of Jackson County. After investigation I found that the infection had been brought from Doton, Ala., to this vicinity by a white lady who contracted the contagion in Alabama. This outbreak was confined to the whites at first, but soon invaded the homes of three colored families, a number of whom had been in attendance in infected white families. My first step was to quarantine all infected families, and to vaccinate all exposed persons who could be found. By so doing I prevented the spread of the disease, and limited the disease to three white and three colored families. Among the whites there were sixteen (16) cases to develop, and nine (9) among the negroes. While in this community, I was able to vaccinate quite a number of people in the neighborhood and received the moral support of the best people of the county. I am under obligations to Doctor Hill, of Greenwood, Fla., for his valuable services and many courtesies extended me while there. I discharged the situation on December 12, 1904, after attending twenty-five (25) cases in all. On November 3, 1904, Dr. W. R. Booth, of Campbleton, reported a number of cases of smallpox north of that place among the negroes. On investigation I found a number of colored families infected throughout a section covering several miles. The source of the epidemic was Dothan, Ala. From which place a negro had come and had spent several days and nights in this community. He had not fully recovered and, consequently, smallpox developed in every family with which he spent a night.

At present, December 31, 1904, this prevalence of

smallpox is under control, and I am awaiting developments. There have been forty-four (44) cases to develop up to the present and two deaths. The only way to control this outbreak was to vaccinate every negro in the adjoining communities to the families infected. This I did, and during the time occupied in this work several hundred had to be vaccinated. From the infected district above Campbleton a negro boy came to a relative's house, three miles below Campbleton. He had developed smallpox and spread it in four families in that vicinity before it could be checked. This is also under observation at present, and seems quite under control after one death, and twenty-six (26) cases. All of the above seventy (70) cases have been among the negroes.

Walton  
County

On November 26, 1904, I was directed to divide my attention and investigate a report to the effect that smallpox was prevalent at Paxton, Fla. I found that the contagion had been imported from Florala, Ala., and was well nigh epidemic at Paxton. It is needless to state that Florala, Ala., is the constant source from which West Florida can import any number of cases of smallpox. On investigation at Paxton, I found several cases and immediately determined to vaccinate every person who had not suffered of smallpox up to that time. With the assistance of Dr. J. P. Phillips, I vaccinated every negro that could be reached, and quite a number of whites. I quarantined all cases, and vaccinated all exposed persons that could be found. This infection is also under observation at present and under satisfactory control. There have been seventeen (17) cases to develop. Twelve of which are among the white people.

On December 9, 1904, two cases of smallpox was reported by one of the physicians of Quincy, and pursuant to instructions I investigated the situation. It proved to be chickenpox. Therefore I immediately proceeded to Jackson County to resume my work.

Gadsden  
County

On December 18, 1904, the State Health Officer directed me to go to Monticello, and investigate reported

Jefferson  
County

cases of smallpox in Jefferson County. This I did, and found two separate epidemics in different parts of the county. One of these is in the vicinity of "Hamptons Mill," nine miles northeast of Monticello. The other is in the vicinity of "Wowman's Mill," about thirteen miles west of Monticello. I have been vaccinating continually, and think I have one of the psuedo epidemics under control. The other I have not been able as yet to vaccinate ahead of, for lack of time. Both are now under observation together with the situation in Jackson and Walton Counties. Up to the present there have been thirty-five (35) cases in all to develop in this county.

In addition to the above I have just located a house in Monticello with eleven recovered cases in it, which I have fumigated and cleaned up; from them there has been one case to develop in one of the white families in town. I fear no spread, however, from the present case.

In submitting the above report I wish to state that, owing to overwork and incomplete notes, I have been forced to omit many details that might have been of equal importance and more interesting than those given herein.

#### REPORT OF DR. W. M. STINSON.

Jacksonville, Fla., Jan. 20, 1905.

Smallpox

During the past year, while occupying the position of special agent of the State Board of Health, my work in conjunction with other's, has been principally toward the control and management of smallpox outbreaks as they have arisen from time to time in different portions of the State. In the great majority of these instances there have been only a few cases, showing that there must have been an importation of the disease from some outside source. This source I think we have good reason to believe to be from some of our neighboring States since we have not had foci which were not practically under the control of the State Health Department at all times, and I believe it would well nigh be impossible for the majority of these outbreaks to have originated in this

State. In the control and management of this disease, I have visited more than twenty different portions of the State, to investigate as many different outbreaks, and, from the knowledge gained, I believe that the time is as yet far distant when we may rest from our labors, not from any fault in the management of these epidemics by the State Health Department, because of lack of cooperative movement on the part of our neighboring States, in keeping down this disease, we cannot expect to receive definite results in its total extermination. We might be said to occupy a position similar to that of the belligerent powers in the Far East; our State taking the part of a smaller power fighting against seemingly overwhelming odds and inexhaustible resources, which our neighboring States seem to possess and to furnish in fresh infection.

Source of infection

The floating negro population is the source from which the majority of our outbreaks occur, as they pass freely over the State line, and from the very hotbeds of the disease and, in some instances, they have the disease developed upon them, on arrival. They mingle with their own race at the border line of the State and start fresh foci from which the disease may spread.

Importation of negroes

Under these conditions, and considering the disease as it now exists in some of our neighboring States, I think the State Board should be given more than usual commendation for keeping the disease under control in the manner it has. Just below our State border lines on the North the fact is especially noticeable that the disease is most frequent and most difficult to control, altogether due, as has been said, to a freedom allowed patients in some of our neighboring States, and conditions of affairs, which is demoralizing to those who we may find it necessary to control in parts of our State near its northern boundary.

The prevailing mildness of the disease and the very low mortality attached to same are making the prompt control difficult among a certain class who seem to care nothing for the esthetic or loathsome features of it. The

Mildness of the disease



## Vaccination

fact also that successful inoculations with bovine virus will prove a specific and prophylactic in all cases is not known by the more ignorant class, and even in some of the more intelligent, there is frequently violent objection raised, and they sometimes bring forth the most peculiar and absurd reasons for refusing. I have had some object to vaccination because they say they have seen people who have been vaccinated develop the disease. The explanation of this apparent but not real condition has been explained by inviting attention to the well known fact that a person may be inoculated with vaccine virus and yet not be vaccinated, also that unless the vaccination be successful as shown by the resulting typical scar, no immunity can be assured. It is a great mistake to vaccinate a person, dismiss him and possibly give him a certificate of vaccination without waiting to be assured as to the successful result, but, how often is this not done? This is one of the abuses of vaccination that the medical profession are surely responsible for and should correct.

Another objection to vaccination I have found to be a fear of sore arms and other annoying sequelae which so often follows the operation when carelessly performed. Many of these troubles are the result of secondary infection, and it is not just to attribute the cause to the vaccination *per se*, for with pure virus, cleanly methods and careful after treatment the dangers of transmitting disease, or of contracting infection are almost nothing. Sometimes after a successful vaccination and on or about the third or fourth day the temperature rises, and may persist until the eighth or ninth day. There is marked leucocytosis. In children it is common to have with the fever, restlessness, particularly at night, and irritability, but as a rule these symptoms are slight. If the vaccination is made on the arm the auxiliary glands become sore; if on the leg, the inguinal glands.

## Technique

As to the proper technique in vaccination, I follow as near as compatible the following points:

The virus should be fresh and absolutely free from contamination. The skin of the patient at the site chosen

for the operation should be sterilized as for any surgical operation, having a surface free from any antiseptic condition by washing well with soap and water, and afterwards with alcohol, drying the skin with absorbent cotton. The hands of the operator should be scrubbed with soap and water, and then wet with alcohol or corrosive sublimate. Use special scarifier, sterilize it by passing through the flame of an alcohol lamp. Choose a point near the insertion of the deltoid muscle if on the arm, and if the leg be preferred, select a site just below the head of the fibula. Avoid scar tissue. Afterward protect with a celluloid shield which has been washed in an antiseptic fluid and dried, but this must be removed as soon as a special lesion has developed. The arm is then dressed with boric acid ointment and covered with aseptic gauze, bandaged so as to avoid compression. Instruct patient to avoid all friction over the wound, and on no consideration to handle the part, in other words, let asepsis be the practice in this as in all surgical operations.

The following are a few facts which experience in vaccinating has taught me.

Degree of immunity conferred. Immunity is said to be acquired by the time the areola is at its height, that is from eight to ten days after vaccination.

Vaccination in a pregnant woman does not protect the child.

The duration of immunity is very variable and, in the presence of an epidemic, revaccination should be done to insure safe protection. A successful vaccination within five years will probably prevent contracting the disease, but will not be a certainty. It is conceded by most authorities that the period of immunity is not only extremely variable but is probably short in most cases.

The protection of vaccination is in direct proportion to the excellence of the virus and the "take." The completeness is shown by the resulting scar. Vaccination protects against smallpox as freely as does an attack of the disease immunize against a subsequent attack.

## Immunity

A large majority of those developing the disease in our State are among the more ignorant and, consequently, our colored population. The disease in a great majority of our outbreaks is extremely mild in character, and has a mortality of less than one-half of one per centum, and rarely leaves a permanent scar upon the person.

As illustrative of what might be done should we ever succeed in getting a comparative compulsory vaccination law, or in other words, have all employers responsible for the vaccination of their employees, I submit the following in reference to the manner in which this condition was controlled in Porto Rico some years since:

"When the Spaniards left the island of Porto Rico in 1898, smallpox was endemic; in December it was epidemic; in January, 1899, it had honey-combed the island and, by February, there were 3,000 recent cases, and the disease was spreading at a gallop. In February systematic compulsory vaccination was begun, with fairly equal efficiency in all parts of the island.

Vigorous prosecution for four months, until July 1st, resulted in 860,000 vaccinations out of a population of 960,000. The work then ceased, completed, and the disease had practically disappeared. In two and half years there have been but two per year as against a former yearly average of 621."

The author well says:

Can any honest, intelligent person doubt, in the face of these indisputable, easily verified facts, what it was that in four months drove smallpox from its wide and long-time reign on the island, and has since kept it out? Vaccination alone did it, and will effectively, wherever compulsory legislation properly enforced secures its benefits to all.

Hyde states: "Vaccination, however, while probably as near perfection as a preventive of smallpox as any means can be, is still not absolutely perfect, and its failures show most plainly in epidemics, when those ordinarily resistant to vaccina become amenable and

vaccination may even apparently succeed after or during the developed smallpox itself."

These exceptional facts, however, prove nothing against the rule and the anti-vaccinationists overlook the signal victories over smallpox of which the general character of the present evidence is itself an evidence. Hyde shows that were it necessary to appeal to statistics at this late day to prove the value of vaccination, the experience of Port Rico alone where smallpox has been practically stamped out in two years would be sufficient. She "bombarded us with a filthy germ, and in revenge we made her clean."

His article concludes with the demand that "vaccination should be the seal on the passport of entrance to the public schools, to the voters' booth, to the box of the juryman, and to ever position of duty, privilege, profit and honor in the gift of either the nation or State."

Personally I have found guard service of little use in keeping infected persons in, except in especially selected instances.

One feature I would also like to mention as regards the potency of vaccine virus. During the mid-summer months I felt very much discouraged at the results I obtained from vaccination, as in some instances I got less than 15 per cent of successful "takes," while during the cold months, and with perfectly fresh virus and that which had been kept at a temperature not higher than seventy-eight degrees I got seventy-five and even a higher percentage of "takes." I would suggest that during mid-summer months that all virus used should be extremely fresh from the manufactory, or if found necessary to be kept over for a time before using, to have same placed in a refrigerator and to only send out sufficient quantity which might be expected to be used within twenty-four or forty-eight hours from the time it leaves cold storage.

As a detailed synopsis from a geographical standpoint, and other data, I would ask your attention to the following table:

Potency of  
vaccine



DATE.	TOWN.	COUNTY.	DISEASE.	SOURCE.
May 17	Cedar Key	Levy	Impetigo Contageosa	Unknown
May 30	MacClenny	Baker	Variola	Columbia Co.
May 26	Lake City	Columbia	"	Georgia
June 2	Providence	Bradford	"	Georgia
June 4	LaCrosse	Alachua	"	Florida
June 5	Hainesworth	Alachua	"	Florida
June 16	Fort White	Columbia	"	Unknown
June 17	Tolan	Columbia	"	Florida
July 4	Tallahassee	Leon	"	Columbia Co.
July 16	Palatka	Putnam	"	Unknown
July 20	Welaka	Putnam	"	Unknown
July 29	Otter Creek	Levy	"	Florida
July 29	Newberry	Alachua	"	Georgia
Aug. 16	Marianna	Jackson	"	Georgia
Aug. 20	Hastings	St. Johns	"	Palatka
Aug. 20	St. Augustine	St. Johns	Secondary specific eruption	Florida
Oct. 1	Kissimmee	Osceola	Variola	Florida
Oct. 15	Parrish	Manatee	"	Unknown
Oct. 25	DeLand	Volusia	"	Florida
Oct. 28	Lake Helen	Volusia	"	Florida
Nov. 1	Kissimmee	Osceola	"	Unknown
Nov. 4	Lakeland	Polk	"	Unknown
Nov. 20	Crystal River	Citrus	"	Florida
Dec. 12	Newberry	Alachua	"	Georgia
Dec. 20	Jennings	Hamilton	"	Georgia

CASES.	COLOR.	NO. VAC.	LOCAL SITU'N.	DEATH.
8	White	25	Town	
3	Colored	45	Jail	
2	"		Town	
11	"	100	Country	1
1	"	75	Country	
2	"	15	Country	
1	"	20	Town	
10	"	50	Country	
1	"	35	Jail	
49	"	375	Town	
3	"	15	Town	
6	"	250	Mill	
4	"	150	Mine	
1	"	30	Country	
5	"	35	Town	
2	White		Town	
1	Colored	25	Jail	
3	"	75	Town	
2	White		Town	
2	"	35	Town	
1	"	15	Town	
7	Colored	300	Country	
14	Both	150	Country	
1	Colored	175	Country	
3	White	250	Town	

Giving a brief history of these outbreaks of small-pox according to their dates. I submit the following:

On May 30th, in response to instructions relative to report of suspicious case held in the county jail at MacClenny, I left for that point to assume control and charge of the situation should the case prove of a quarantinable nature. I found three negroes in the jail (all brothers. One was in the pustular stage of variola. The three of them had been brought a few nights previous from Columbia County for a supposed misdemeanor, and the jailor at MacClenny had put them in jail, not knowing at the time that one of them had smallpox. The next

Smallpox  
Baker County

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morning there was considerable excitement in the town when the jailor reported what he had in the jail, and when I arrived the citizens and authorities were disposed to let these darkies out and send them again to Columbia County, thinking that Columbia County had simply used this means of getting rid of an unwelcome situation. After discussing the matter with them at some length, I convinced the authorities that where the disease was it would be best for it to remain, as no one could be exposed without the knowledge of the jailor and the cases could be taken care of properly, and at the end of the disease the jail could be thoroughly and properly cleaned. I vaccinated the two brothers who did not have the disease, but neither of the vaccinations were successful and both men finally developed smallpox. All the cases were light in character. After the last one had entirely recovered, the jail was disinfected. There was very little cost to the State in this instance as, being prisoners in the jail, the county agreed to continue control of them as prisoners and furnished provisions and other needful articles, county health officer of Baker County looking after their welfare.

Smallpox  
Bradford  
County

On June 2d, in response to instructions from the State Health Officer that reports had been received from Providence and LaCrosse relative to a smallpox outbreak in both of these places, I left for Providence, Bradford County, Fla., to look into the report of smallpox near that place and assume charge of same should a disease prove of a quarantinable nature. I found in a very thinly settled section of the country, about six miles from Providence, a small three-room cabin, and in it a family of eleven negroes, four of whom had well developed cases of smallpox. I gave them instructions as to quarantine, stating penalty of breaking same, also vaccinated all who did not have the disease. Regardless of repeated vaccinations, not one of them "took." All developed the disease, and one woman gave birth to a babe while suffering from the disease, but child did not have the disease. One child, seven years of age, died

from secondary pneumonia. These were the worst cases I have seen during this smallpox prevalence. After disinfecting the house and contents and superintending also, a thorough cleansing of their bodies, I dismissed the cases. I understand that the neighbors a few days afterwards, after giving these negroes notice, burned the house. There were no further developments in the neighborhood from this source.

On June 4th, in accordance with instructions, I visited LaCrosse, Alachua County, Fla., and arriving at that place investigated the report. I found one case of smallpox about two miles out of town in a very isolated region, the case being about well at the time. I gave instructions as to quarantine, vaccinated all in the neighborhood and gave instructions also as to disinfecting, and, as I had knowledge of other cases about five miles from there, I went to this point (Hainesworth) and investigating conditions there, found two cases. I instructed them in regard to quarantine, vaccinated others around here, and looking after these cases at Providence, LaCrosse and Hainesworth until they were entirely recovered, had the houses and contents disinfected and dismissed the patients. There were no other cases of smallpox following.

On June 16th I went to Fort White in response to report from railroad authorities at that point. The report had, for some reason, been delayed and I found that the case of smallpox which they had given us knowledge of had entirely recovered and was at work as a section hand. They had, themselves, disinfected the room where this negro had been sick, so I contented myself by vaccinating those in the community, and those who had been exposed to the disease. I heard here that there were cases at a place known as Tolan, about eight miles from Fort White. I investigated this report and found two families, one family in which all the inmates had just completed the disease, and a near neighbor of this family who, at the time, had the disease. I disinfected and discharged the first case and quarantined the second



family. This was a very isolated section of the country, and there were very few whom I found it necessary to vaccinate. There was no further spread of the disease from these families, though I understood that there was and had been at that time other cases at a phosphate mine, about five miles distant, and I have no doubt that the above mentioned families contracted the disease from this source, though at the time I was unable to get any information at all as to the source of infection.

Smallpox  
Leon County

On July 4th, in response to instructions, I went to Tallahassee to assume control of the smallpox situation which existed in the county jail. I found one case of smallpox in a prisoner. There were nine other prisoners in the jail, all having been exposed. I had the man with the disease isolated in a cell as far as possible away from the others. I vaccinated all the other prisoners and continued to vaccinate them every second day. All who did not have previous scar indicative of a past successful vaccination, "took." I have often pursued this method of revaccination, not waiting fully six days to know positively whether or not the vaccination is successful, but revaccinating at shorter intervals, about every forty-eight hours, giving the virus an opportunity to thoroughly get into the system, and it seems that even before the typical pustule appears upon the arm the person may have sufficient resistance to keep off the second vaccination. As I mentioned, not one of the other prisoners in the jail who had not a previous scar failed to "take" and, consequently, the outbreak was stopped at its very inception.

Smallpox  
Volusia  
County

On July 16th, in response to instructions, I visited Palatka to investigate the smallpox situation then existing at that point. There was a pest house being used in the suburbs of the town and in one of the best locations for such a house that I have ever yet seen as it was on the banks of the river and surrounded entirely landward by the most dense jungle of marsh, grass, vines and undergrowth, and the only way that one might escape from the place was by swimming, or in a boat.

I found about eight cases in this pest house. Smallpox appeared to have existed in the town for some months. I assumed control of the situation, and made a house to house canvass in the town for cases, vaccinating all, especially in the infected districts, and sent cases found to the pest house and disinfected houses, clothing, etc., at the infected points. There were as many as twenty-one cases in the pest house at one time. The chief of police rendered me valuable assistance in the first day or two of my crusade. After his very thorough canvass, especially in the infected districts, I covered the section about three times weekly. Only three other cases developed. Since this outbreak closed Palatka has been entirely free from smallpox so I learned from the chief of police about a month or six weeks ago.

On July 20th and during my stay at Palatka, I visited a small place about twenty miles from Palatka to disinfect and release a case of smallpox then about recovered. I vaccinated freely in the community, disinfected the house, and returned to Palatka.

On July 29th I received instructions to investigate a case of reported smallpox at Otter Creek in Levy County. I went to this place and found two cases existing in the negro quarter. I had them with their families taken to a pest house located in the country. I vaccinated the whole of the negro quarter of the town. I also vaccinated those in the infected families who had not already developed the disease. Greatly to my surprise, no other cases developed in the town, but in the families I sent to the pest house there were two other cases. All of the cases were extremely mild in character. I believe that the extreme heat of the weather is to be given credit for our not having a severe epidemic at this point. I know of no other reason, if such may be considered a reason which prevented it.

Smallpox  
Levy County

On or about August 1st, and while at Otter Creek, I had information of an outbreak of smallpox at Newberry in Alachua County. Arriving there I found that

Smallpox  
Alachua  
County

out about six miles from the town at a phosphate camp four cases of smallpox were isolated in a small cabin by Doctor Ruff. With the assistance of Doctor Ruff, I vaccinated all the employees at this mine and instituted a rigid quarantine, and having my hands full at Otter Creek, I left the situation at Newberry with Doctor Ruff. [ afterwards learned that there were no further developments.

Smallpox  
Jackson  
County

On August 16th I left Jacksonville for Marianna, in Jackson County, to investigate a report of suspicious cases near that town. I found, about six miles from Marianna, one case of smallpox which has entirely recovered. This man had recently come from Georgia and had the disease at the time he came. He was in a cabin alone, being attended by his father who had had the disease a number of years previously. I vaccinated about fifty people in the community which was a very thinly settled section of the country. After disinfecting the house and contents I dismissed the man and returned to Jacksonville.

Smallpox  
St. Johns  
County

On August 1st I investigated a report of smallpox at Hastings, in St. Johns County. I found one case in the suburbs of this town in a negro who had recently come from Palatka. He was in a house with a family of five and, of course, all had been exposed to the disease. I quarantined the house and vaccinated the inmates, keeping a very strict and rigid quarantine as far as possible without guards. I vaccinated very freely in the community. The vaccinations, which were repeated in the members of the family who had been exposed did not take and two others developed smallpox. I then, upon inquiry, found that the other members of the family had previously had the disease in Palatka, and it had been of such extreme mild character that, except upon the very closest scrutiny, could this be detected, and I had overlooked this upon my first examination. After the recovery of the last case I disinfecting the house and discharged the patients. There were no other developments of the disease at this point.

On August 25th, while in charge of the situation at Hastings, which is only a short distance from St. Augustine on the East Coast Railroad, I received instructions from Jacksonville to investigate a report of suspicious cases at St. Augustine. There I found considerable excitement in a certain section of the town where there were a number of first-class boarding houses. The suspicious cases were two young white boarders: one held simply on suspicion, the other because there was a slight rash over his body. They had both occupied a boarding house by themselves, the other members having left, fearing the possibility of smallpox. The young man with the rash I diagnosed as being a secondary specific eruption, and the other young man simply held as a victim of circumstances, or in other words, being in bad company. While here I was informed that there were some cases in the pest house, and on investigation I found two cases, but about well. As the situation was well under control and there was no danger of spread, I returned to Hastings.

On October 1st I received information that smallpox existed at Kissimmee, in Osceola County, and in the jail at that place, one case was found in a white man. There were three other persons in the jail and all had been exposed to the disease. The jail was located in the basement of the fine county court house. One of the prisoners had previously had the disease, and the other two had been successfully vaccinated. I judged that the case could stay where it was until such time as it would be in a condition to be discharged, but there were some objections raised by the county commissioners who held a special meeting to discuss this proposition. They wished the State Health Department to take all the prisoners out and put them in a pesthouse and guard them and feed them, until such time as the patient would be well, or until I deemed it safe for him to return. Of course I could not agree to any such proposition as I did not consider the State Health Department should be held responsible for feeding and guarding these prisoners

Smallpox  
Osceola  
County



as prisoners, and assume responsibility of their safe-keeping. The commissioners finally compromised by agreeing to build a pesthouse sufficiently strong to be a jail and assume charge and part of expense of all prisoners. the Health Department paying the sum of one dollar a day for feeding and nursing patient. By the time the pesthouse was built, patient had about recovered and, of course, the other prisoners did not develop it. I superintended disinfection of the jail by the prisoners themselves and had same done in an especially careful and thorough manner. As for the source of the disease in this case I have reason to believe it to have been contracted in the jail itself as there was rather authentic data to the effect that a mild case had, some months previously, developed in the jail.

Smallpox  
Manatee  
County

On October 15th I received instructions, which caused me to visit Parrish, Manatee County, Fla. Reaching there I found one case of smallpox in a colored man living in the section house of the railroad, also two other cases in the suburbs of the town in a small cabin. I had the case taken out into the country and put in an isolated and comparatively worthless cabin, which was kindly offered by the proprietor of an orange packing house, he saying that one of his employees owned the shack and that said employee was entirely willing for us to have the use of this house as it was of comparatively no value, and there were at the same time hints that the house would probably be burned after the case were discharged. The houses in the suburbs of the town where cases had been removed from were burned that night and, as subsequently happened, the house in which patients were, was also accidentally burned at about the time that patients had completed their recovery, saving the citizens this trouble. How the house caught fire no one seemed to know. One of the negroes who was asleep in the house came very near being cremated. I arranged a small shack for the patients to stay in until entirely recovered when I disinfected their persons and belongings and discharged them. I succeeded in vaccinating only

about seventy-five of the inhabitants of the town. There were no subsequent developments of the disease.

On October 28th I went to Lake Helen, in Volusia County, to superintend the disinfection of a cottage in the Chatauqua Camp at that place. I carefully and thoroughly disinfected the house. The cases which had been in this house and which had been removed to DeLand I then saw, DeLand being about eight miles from Lake Helen. I found the cases to be two white men who were occupying the poor house as a pesthouse. These two cases were entirely well so I disinfected and thoroughly fumigated the house and belongings and person of the inmates.

On November 1st I again visited Kissimmee, in Osceola County, to investigate a smallpox situation. I found one case in the new pesthouse which the county commissioners had previously built, and also satisfied myself that this case did not originate from the previous case they had which existed in the jail a month before. This case was in a young white man, an orange packer from the East Coast, and he was unable to give any information as to where he might have contracted the disease. While there I received instructions relative to a smallpox outbreak at Carter's Mill. Leaving the situation at Kissimmee in Doctor Hick's care, I went to Carter's Mill near Lakeland. I found several cases existing at a turpentine camp, about five miles from Carter's Mill. I had these patients taken to an extremely isolated spot, about five miles further into the pine woods, to a small cabin which had been built to lock tools in when the negroes were working the trees in that section. I vaccinated the entire camp, also the mill hands. In all I vaccinated about five hundred people. No other cases developed.

On November 20th I visited Crystal River, in Citrus County, investigating a smallpox report from that place. I found in what was known as the Lacanto section, twelve cases. This section is about twelve miles from Crystal River, and is in a thickly settled farming

section. I preached vaccination to good success, as the people were rather frightened. I isolated in their homes those who had the disease. There were only two cases developed, and the great majority of the vaccinations "took." This is a positive demonstration of the manner in which this disease may be controlled by the timely administration of vaccine virus as a prophylactic; as all of these cases had originated at about the same time and from the same source.

Alachua  
again

On December 12th I visited Newberry, in Alachua County, in response to a report of suspicious case by Doctor Ruff of that place. I found one case, upon my arrival, who had been already isolated by Doctor Ruff, and being in the latter stage of the eruption. The patient had rather a severe case, especially over the face and exposed parts. I took the manager of the phosphate camp where the negro was to see him and he was so surprised and repulsed at the appearance of the man that I had no trouble at all upon my return to the mine in vaccinating all the employees. There were no further developments. This man is one of the few who will have permanent scars.

Smallpox  
Hamilton  
County

On December 20th I received instructions to visit Jennings, in Hamilton County, to investigate a suspicious eruption reported by Dr. J. M. Carswell of that place. Arriving at Jennings, I found one case of smallpox typically developed in a white man, one of the leading citizens of the town. There had been considerable discussion by the physicians and citizens in regard to the case. The patient, himself, had not been confined to his bed, and had during the first six or eight days of the disease, freely exposed himself on the streets unmindful of what the possible results might be should his ailment prove to be smallpox, as he was told it was, by a number of persons. He at last found it necessary to go to bed on account of the severity of the attack, and when I saw him he was quite ill. His family consisted of a young wife and a nine weeks old baby, both, of course, having been exposed. I recognized the case at once as

being variola and immediately there was great excitement, both by this gentleman and his family and his friends about town, resulting in a stampede to be vaccinated. I vaccinated at least three hundred in a very short while. One of our medical brethren who doubted the character of the trouble, hesitating in his mind about this condition to call it smallpox, unfortunately contracted the disease later on. After I had disinfected and discharged the patient and his family who first contracted the disease I returned to Jacksonville, leaving everything quiet, as I thought, as all of the citizens who had been directly exposed to infection in the first place had been successfully vaccinated. To my surprise, however, some few days after my arrival in Jacksonville, I received a telegram and again returned to Jennings. Wondering as to the cause of the summons when I arrived at Jennings and found my doubting brother physician with a typical case of smallpox. He made an accurate diagnosis of his condition this time himself, deploring his former ignorance or opposition. The wife and baby of my first patient, I should have mentioned, contracted the disease also; on both of them however vaccination took and went along with the smallpox attack. Their cases though were of the very mildest type, and should circumstances not have been as they were, even an expert would probably have made a mistake in their cases. Since these cases there have been no further developments.

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DR. HIRAM BYRD.

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DR. JOSEPH Y. PORTER,  
*State Health Officer,*  
Jacksonville, Fla.

DEAR DOCTOR:—

I enclose herewith my annual report for the year 1904, or rather that part of it in which I was associated with the State Board of Health (till November 15th).



During the year I have traveled, in the interest of the State Board of Health, about fifteen thousand miles; have visited twenty-one of the forty-five counties in the State; seen and reported two hundred and ninety-three cases of cerebro-spinal fever, fourteen cases typhoid, eight cases diphtheria. Have vaccinated about fourteen hundred people; disinfected about fifty houses; collected mosquitoes at the various points where my other duties chanced to take, and have delivered a few addresses before colleges and city councils on sanitary subjects.

But, by far, the greater part of my work relates to smallpox, cerebro-spinal fever, and mosquitoes. I devote therefore a separate section to each of these topics.

Very truly yours,

(Signed) HIRAM BYRD.

#### SMALLPOX.

Dr. Hiram  
Byrd's report

*Type.*—The type of this disease has not varied appreciably from last year. It has been for the most part mild. Of the 293 cases that came under my observation, only one was fatal. Pitting occurs in about 20 per cent of the cases. It is usually worst about the face, especially across the middle zone. I saw one mild case in which a pustule occurred on the cornea, leaving a permanent opacity. Have seen one case complicated with pneumonia.

*Incubation.*—Most observers place the incubation period of smallpox at ten or fourteen days. The late Eugene Foster, however, gives it a wider range. He places it from seven to twenty-one days. I have seen several instances bearing this out. It is worth nothing also that these cases, in which the incubation was long drawn out, have been invariably mild. This, of course, was to be expected.

Smallpox

*Smallpox without Eruption.*—There has been some controversy as to whether we ever have smallpox without eruption. In the light of that contention, the three cases following are not without interest:

No. 1, Alex Thompson, colored, age 45, unvaccinated, and his paramour were exposed to smallpox. On the tenth day they both had a chill, followed by a rise of temperature, headache, backache, both took to bed. On the third day of the fever the woman developed the eruption of smallpox and "felt better." The man's temperature subsided but no eruption appeared. I subsequently vaccinated him four times with fresh virus (virus with which I was getting 90 per cent "takes"), but it absolutely refused to take. He afterwards staid at the pesthouse and waited on the patients six weeks without developing smallpox.

No. 2 and No. 3, Lake City, in the family of Johnson-Lark, colored. The father first developed smallpox. He had a severe case. Next the mother had somewhat milder case. Subsequently the four children all developed the prodromal symptoms, and one had a mild case of smallpox, another had three pustules, and the other two recovered without eruption. Vaccination would not take in either case, showing that they were then immune.

Nor is there anything so remarkable in a case of smallpox without eruption. It is estimated that a case of semi-confluent variola has about three thousand pustules. On the other hand, cases with only a dozen pustules are very commonly met with. Indeed, I have seen several well-defined cases with only two or three. Since the number of pustles may vary from three thousand on the one hand to two or three on the other. I see no reason why it should not drop off even these two or three. And I believe that the three cases above referred to were cases of *variola sine eruptione*.

The public attitude toward smallpox has decidedly changed during the past year. In most communities now the presence of smallpox is regarded as a trivial matter. In many instances it is not even reported. I was in Jefferson County in August, and found seventy-seven recent cases, all of which had recovered but five or six and they were convalescing. I was in Orlando

in July, and found several cases. It had evidently been existing there for several months under the name of chickenpox.

In some communities, however, where they have had little or no experience with the disease, the announcement of a case of smallpox still causes at least a general uneasiness. Such was the case at Cocoa in June. Last January a case developed in the Florida State College in Tallahassee. It was in the person of one of the professors, who had rooms in the girls' dormitory. Had it not been for the timely and cautious interference of the State Board of Health, a panic would have ensued with disastrous result to the college. Doctor Moor, of Tallahassee, was the physician in attendance. As soon as he recognized what he had to contend with he wired the State Board of Health. Just then he learned that I was in Tallahassee, and came at once to see me. I went with him to see the case and confirmed his diagnosis. We announced the situation to President Murphree, and at once outlined a course of procedure. It was clear that the patient must be taken from the dormitory and his apartments disinfected, and the students vaccinated. How to accomplish this without precipitating a panic was the problem. There were perhaps 250 students in school, a goodly number from a distance, and a large per cent were young ladies. There was at the time a few cases of smallpox, about eight miles out, and already several anxious inquiries had been made as to whether there would be any danger in remaining at Tallahassee, and how far does smallpox travel through air, and will white people take it from negroes, etc. Just a hint that there was a case of smallpox in the dormitory would have been all that was necessary to precipitate a panic. We decided, therefore, to quietly move the patient to the hospital without letting it be known what his real trouble was. This we did and so effectively that the patient was well and dismissed before it was known to the public that he had smallpox. All danger was over

then, and no uneasiness was felt. No other cases occurred.

*Management* of smallpox has not materially changed. The essential procedure in all cases is: isolation of the patient, vaccination of those exposed, and disinfection of infected houses, fomites, etc. I have not had recourse to guard service this year, but have in a few instances had to employ a nurse. I have had to furnish groceries where the patients were indigent. And I have always endeavored to make the patients and others exposed feel that the State Board of Health was their friend, and have thereby gained their confidence and cooperation. Nor do I know of an instance where groceries were furnished in which the quarantine regulations have been broken.

*Isolation* is a simple matter where there is a pest-house, but where there is not it is sometimes quite a problem. I have usually found it most expedient to quarantine the patients in the house where found. If there are other inmates in the house, of course, they are to be vaccinated at once. They are then kept in another part of the house if possible. In such cases, where vaccination takes promptly, the individual may be considered safe if he escapes smallpox till the vaccination pustule reaches maturity and begins to subside—usually about the tenth day from the date of vaccination. People rarely refuse to be vaccinated in the immediate presence of smallpox.

*Disinfection.*—During the year it has fallen to my lot to disinfect about fifty houses. They have presented a diversity of conditions, so that I have had to meet and overcome many difficulties attending practical disinfection. A great majority have been small open dirty houses—huts in which fumigation is not to be thought of. Sulphur and formaldehyde are worse than useless where the fumes cannot be confined. In such cases I have resorted to bichloride of mercury. I have found the following formula quite useful:



Bichloride of mercury..... 4 ounces.  
 Ammonium Chloride .....12 drachmes.  
 Water enough to make ..... 8 ounces.

The above in sixteen gallons of water makes a solution of bichloride of mercury 1 to 500 strong.

The solution has the advantage of being easily carried, it can be had at any drugstore, is inexpensive, can be used to wash the patient, bedding, clothing or house, and can be relied upon.

#### Vaccination

*Vaccination.*—This subject has been threshed over again and again till it seems that time spent on it is useless, nor shall I have much to say about it. I merely want to reiterate a few facts concerning smallpox and vaccination, facts that may be easily substantiated, and facts which every citizen ought to be familiar.

1. That smallpox, variola, varioloid, swinepox, Cuban itch, elephant itch, Philippine itch, and the "bumps" are one and the same thing.

2. That it is caused by a germ, or micro-organism, or microbe, or "bug" if you please, and that only. It is never caused by filth.

3. That it does not generate spontaneously but that each case comes from some other case.

4. That it does not travel through the air, but that in order to contract it one must come in direct contact either with a case of smallpox or bedding, clothing, or some material that has been in contact with the patient.

5. That a severe case may be contracted from a mild one or conversely, a mild one may be contracted from a severe one.

6. That both sexes, all ages, and all races are susceptible to the disease.

7. That the eruption is usually worse in the face, especially across the middle zone, so that when pitting occurs it is apt to be there.

8. That there is no known way to prevent pitting except to prevent the disease altogether.

9. That smallpox is a preventable disease—no man woman or child need have it that choose not.

10. That vaccination is the only known safeguard against it.

11. That vaccination does not merely make the disease milder, but *prevents it altogether*.

12. That in a great majority of cases one attack of smallpox or one successful vaccination renders the individual immune for life.

13. That in a few cases, however, one attack of smallpox or one successful vaccination produces only a partial immunity, and that in such case, the individual may subsequently contract smallpox or be successfully vaccinated again.

14. That there are no natural immunes.

15. That the only way to know that you will never have smallpox is to be vaccinated again and again till it will no longer take. When thus immunized, one may eat with it, sleep with it, or live with it, with absolute safety.

The above terse statement will answer all ordinary questions concerning smallpox and vaccination.

*Virus.*—With an experience covering about three thousand vaccinations, and having used virus of all the leading laboratories of America, I am convinced that it loses its potency, in this climate, earlier than it is generally believed. This is especially true in summer. I have repeatedly used a lot of virus getting 90 per cent takes at first, but gradually lost its potency till it will not take at all. In summer failures begin to be noticed six or seven weeks prior to the time the virus is marked to expire, and in two or three weeks more it is absolutely unreliable. In winter it holds up from one to two weeks longer. In summer therefore virus should be exchanged for fresh at least five weeks before it is labeled to expire, and in winter three or four weeks.

Before I stumbled upon this fact, I vaccinated a great many people, thinking I was using fresh virus, and wondered why they did not take, when the truth was, I was using virus already inert.

#### CEREBRO-SPINAL FEVER.

During the year I have seen only one outbreak of cerebro-spinal fever reaching epidemic proportion. This was at Madison. I read a paper on it before the State Medical Association. This was a tolerably complete report. I insert it in full:

#### CEREBRO-SPINAL FEVER.

(The epidemic at Madison.)

HIRAM BYRD, M. D., JACKSONVILLE, FLA.

(Special Agent, State Board of Health.)

From the literature ordinarily met, one who had never seen an epidemic of cerebro-spinal fever would think that it is a local lesion of the meninges of the brain and spinal cord; and could hardly conceive of a cause occurring without pathological changes taking place there and consequent cerebro-spinal symptoms.

Such however is not a case. But on the contrary, it is a systemic infection. It may or may not be accompanied by cerebro-spinal lesions. And this is the central thought of the clinical side of this report. But from the sanitary point of view, the manner of organ and distribution will claim most of our attention.

And in presenting this report it is necessary that I should preface it with a few explanatory remarks.

It is not my purpose to paint a complete clinical picture of the disease (any good text book does that), but merely to emphasize certain features of it which are, by most writers, passed lightly by. What I shall endeavor to do is:

1. To give a sanitary report of the epidemic.
2. To incorporate in it such clinical data as is necessary in order to give a general idea of what the epidemic was like, and
3. To use my own observations and those of others to sustain certain conclusions, concerning the nature, manner or origin, and distribution of the disease.

I have drawn from every available source information bearing on the subject. My own observation I have supplemented with data kindly furnished by the physicians of the vicinity and the families in which the disease occurred. I have endeavored to give an accurate report of the outbreak, unbiased by any erratic notions previously acquired. I am free to confess that in many instances it came far short of my conception of cerebro-spinal, but I am forced to think that it was the conception at fault and not the disease. I have interpreted freely the phenomena observed without antagonism to any one. My conclusions are my own only so far as they are different from others. The plan I have elected to follow is (1) to describe the leading symptoms of the disease as encountered at Madison; (2) to discuss the mortality; and (3) to discuss manner of origin and distribution. And I hope that whatever of native charm this paper may lack, will be supplemented by the unusual interest attached to the subject.

#### SYMPTOMS.

Cerebro-spinal fever, as encountered at Madison, usually began with a rise of temperature, accompanied in about half of the case by a chill. In some instances the chill was severe and repeated. In some it was severe but not repeated. In others it was less severe. And in still others it was described as chilly sensation, while in many, the chill was wanting altogether.

So far as I know, there was febrile temperature in every instance. But it did not conform to any special type. Nor was its height any index to the patient's condi-



tion. Death ensued with either high or low temperature. Just before death in one instance the temperature reached 107 and two-fifths. In another 107. In some though, it was just above the normal line, and in some it was just below it. In one instance it advanced from 104 to 107 in about two hours, the patient having had an ice pack in the intervening time. But as a rule the temperature was not very high. Perhaps 100 to 102 was the most common. In one instance a small boy developed a high temperature in the afternoon. Next morning he had typical eruption but his temperature was normal. The second morning his eruption was fading, but his temperature was 102. The third morning his eruption was entirely gone, his temperature was 100, and he was insisting that he was well. He went to an uneventful recovery. It was not uncommon to find a temperature of 100 to 101 or 102 during delirium. The duration of of the temperature was as variable as its intensity. In one case that was followed by an abscess of the brain, the temperature lasted five weeks or more. In one uncomplicated case the temperature lasted over three weeks, subsiding by lysis. From this it could be traced through a series of cases each of a little shorter duration than the one next above till a limit of twenty-four or thirty hours was reached and possibly that where diagnosis was uncertain.

Headache, like fever, was a certain symptom. In the worst cases it was severe and accompanied by retraction of the head and rigidity of the cervical muscles. In such cases, delirium soon supervened, lasting a variable time and giving place to coma on the one hand or stuper on the other. In the milder cases, headache was correspondingly mild. In some well defined cases it was hardly complained of at all. It was also uncertain as to position, being in some instances occipital, and in others frontal.

Backache was noted in the worst cases. Opisthotonos was reported in some of the fatal ones. From that degree of severity, it too could be traced through cases

less severe till it finally faded out and was not present at all in some of the endoubted cases.

Arthritis was noted as an occasional symptom. The wrists, ankles and knees were most affected. In one instance there was reported an effusion into the knee-joint. In others there was swelling and tenderness and in still others only pain on moving, while a majority of all the causes had no joint symptoms.

Constipation was the rule. In only one instance was diarrhoea reported and that was a negro who had just been on a drunk prior to his attack.

Catarrhal symptoms were present in a few cases but so seldom that I feel inclined to regard it as coincidental.

The eruption was present in about seventy-five per cent of the cases. It was two distinct types: petechial and herpetic.

The petechial eruption appeared usually in twelve to thirty-six hours after the onset of the disease. As a diagnostic point, its absence means nothing but its presence means a great deal. As ordinarily encountered, it resembled flea-bites, consisting of red splotches, varying in size from a pinhead to a dime, the edges not well defined and shading off into the color of the skin. The surface was rarely raised, though in the more marked cases sufficiently so to be perceptible to the touch. Occasionally there was a pin point place on the center of deeper red than the rest of the splotches. And in two instances, larger patches occurred dotted with minute extravasations of blood. One of these was a fatal case and died while these patches were still present. The other recovered, and later the hemorrhagic patches took on a jaundice appearance, peculiar to the reabsorption of extravasated blood.

The eruption was usually confined to the fore arms and legs, but the distribution was by no means constant. In some cases it was not only abundant in these places, but well sprinkled over the body and face, while in others it was either sparsely localized or altogether wanting

even in fatal cases. It was not observed in the negro in any instance but I attributed it to the fact that it could not be perceived through his pigment.

The eruption was as variable in its duration as the disease itself, but usually lasted till convalescence was established. In some cases though it faded during the height of the disease. No desquamation followed it.

The herpetic eruption was about as constant as the petechial. It had a predilection for the face—especially the lips and chin. In one instance it was noted in the mouth, and in two others on the hand, and one on the foot. It is described as occurring on the body, but I did not have the privilege of verifying this.

The mental state of those suffering from cerebro-spinal fever is worth nothing. In some cases delirium came on shortly after the onset and lasted from a few to several hours. At such times the patient was kept in bed with difficulty. Finally after varying intervals the patient would pass into coma or stupor according as the symptoms were growing worse or better. The patient could be aroused from his stupor and would give coherent answers if attention was held while he spoke.

It must be inferred from this that all or even a majority of the cases suffering from any mental cloudiness during the attack. This was confined to the worst cases only, and that includes about half of those affected.

Eye symptoms were noted in eight cases. In seven of these it was strabismus, and in the eighth ptosis. Six of the seven cases of strabismus occurred during the height of the attack and were divergent; the seventh during convalescence and was convergent. Of the eight cases, five died in thirty hours to one week from the onset. One developed abscess of the brain and died several weeks afterwards. Four weeks from the onset one was reported convalescing but subsequently died. Only one of the eight recovered, and he is still slightly affected with strabismus.

## DURATION.

The duration, like other phases of the disease, was variable. Ten of the fatal cases only lived from thirty hours to one week. The fifteen mildest cases recovered in about the same time. But between these there was two that died after several weeks, and three in which convalescence was long drawn out, lasting from three weeks to more than a month.

Now if, and since, the individual symptoms may be so variable, what may be expected of the disease itself? How many combinations can be made of them? And what a stretch from that case in which all the severer symptoms are present, to the one in which only a few of the milder are? And yet this is what actually happens. In the epidemic it is represented on the one hand by those cases in which the individual is attacked in perfect health and breathes his last in thirty hours, and on the other hand by these who have an attack and recovers almost as quickly. Yet great as such a difference is, it is bridged by an unbroken series of cases passing through such gradual transactions from one to another till even division into types is at best but arbitrary. It is even more variable and irregular than smallpox.

Now if we begin at the worst cases and pass down the line, watching them grow milder till we reach a point, beyond which diagnosis is impossible, have we a right to stop and say that the process goes no further because we are unable to trace it?

## MORTALITY.

The exact mortality rate is difficult if not impossible to determine. Just how many cases there were is not known, for the reason that there were many that were so mild that it was impossible to make a diagnosis of cerebro-spinal fever, and yet we were at a loss to understand them on any other hypothesis. Such doubtful cases are not included in this report. Again just how many deaths are attributed to cerebro-spinal fever is



not certain. For instance, Doctor Mickler saw a case just a few minutes before it died, and reported it as showing evidence of "inflammation of the brain." Further there were many cases reported as having had certain symptoms, and recovered without being seen by a doctor. So in all probability if the exact truth were known there would be more than is now reported. This report includes, however, only those cases which were seen by a physician and in which a diagnosis was established with a reasonable degree of certainty.

The first case reported developed on February 3d, and from that time till the 17th, the disease was at its height. During these two weeks, fifteen of the thirty cases developed, and seven of the twelve deaths occurred. During the next two weeks, from February 17th to March 2d, nine cases developed and one death. During the three weeks, dating from March 2d, four cases were reported, and two deaths. Two that were reported convalescing subsequently died. This makes a total of thirty cases and twelve deaths, or forty per cent mortality.

If we were to include in our diagnosis only those cases in which cerebro-spinal fever symptoms were pronounced, we would report fifteen cases of cerebro-spinal fever, and twelve deaths, or a mortality of eighty per cent.

Now let us suppose that this epidemic occurred in some large city, say Baltimore, and what would have been the result? There was eighteen families invaded. There would in all probability, have called as many as fifteen doctors, and so they would have seen an average of some two cases each. They would have known nothing of the other cases to help establish a diagnosis, and none except those in which the cerebral symptoms were pronounced would have been called cerebro-spinal fever. Possibly fifteen cases would not have been reported, twelve of which died and mortality statistics would have been made up accordingly, showing a much higher rate than actually existed.

If it had occurred in Baltimore, possibly a dozen cases would have gone to the hospitals, and these would have been studied with great care while living would have gone to autopsy after death, and elaborate reports made on the clinical and pathological conditions, and others gather their data from such reports to write textbook articles from. Such articles will necessarily be misleading from the fact that they do not take into account more than half the cases and the worst half at that, while the other half is just as important and infinitely harder to diagnose. I am beginning to understand why the late Eugene Foster defined a textbook on the practice of medicine as a book that is made to mislead students and young practitioners.

#### CONTAGIOUSNESS.

It is the consensus of medical opinion that cerebro-spinal fever is, if contagious at all, very mildly so; in any event not exceeding tuberculosis. I see nothing against that opinion. Certain features of it did at first look as if it might be contracted one from another, *e. g.* a man came to see Mr. C., and sat on the side of the bed some ten minutes. Forty-eight hours later he developed the disease himself. A cook was employed for the family of Mr. C. She served just one week and developed the fever. Again all of Mr. C.'s family, also a nephew that was in the household, had it. But on the other hand, his brother-in-law and wife and niece stayed in the house with them all during their illness and did not contract it. Again, of the eighteen families that it invaded, there was twelve in which it originated without any traceable history of exposure. And fourteen of the eighteen had only single case, while only four had multiple cases. From what I can learn I think that at least two hundred people were exposed to it, and yet only thirty developed it. And these thirty there is no traceable history of exposure in more than half. Since half the cases developed without having been exposed,

it is highly probable that the fact of the other half having been exposed was merely coincidental and that they would have developed it any way.

I have said that it is a systemic infection. But that has been said before. That grand old Master Wm. Pepper concluded it systemic. Musser very properly emphasizes that fact and places the disease among the eruptive fevers. Nor could I conceive of a local lesion producing such marked constitutional symptoms as occurred in some cases without local manifestations. I am referring now to some of the cases that had the typical eruption, high temperature and aches with practically no headache, and without any cerebro-spinal symptoms. Furthermore the specific cause has been recovered not only from the cerebro-spinal fluid, but from the blood, the spleen, effusion into the joints, pneumonic areas of the lungs, and from catarrhal mucous membrane of the nose and throat. On the other hand the evidence that it is a local infection is (1) that the organism is found more abundantly there than elsewhere, and (2) that the autopsy practically always gives evidence of a local lesion. That the first should be so even though it is a systemic infection is made clear by the fact that the organism is known to have a predilection for the cerebral membranes, just as the organism of diphtheria has a preference for the throat. And that the autopsy should reveal such in due to the fact that none of the milder cases, ever reach the autopsy table. Indeed I doubt if those cases in which the cerebral membranes are not involved are ever fatal.

That cerebro-spinal fever is due to the diplococcus intracellularis, is now generally accepted. That the pneumococcus, the streptococcus, the typhoid bacillus, and the tubercle bacillus, may attack the cerebro-spinal membranes and cause a true meningitis is well known. So in a single isolated case all these possible causes must be considered in making up a diagnosis. But in the presence of an epidemic they are all eliminated, except the diplococcus intracellularis, since it is the only known

organism they may cause an epidemic of cerebro-spinal meningitis. (I wish to say just here, by way of parenthesis, that I use the term *cerebro-spinal meningitis*, as referring to the conditions which may be brought about by any of the above mentioned organisms; but the term *cerebro-spinal fever* is used with reference to disease in question, which is caused by the diplococcus intracellularis, and that only.)

This organism is evidently widely distributed in nature, for the disease has appeared from time to time all over the world with the possible exception of the tropics. And twice, since it was first described, if the records may be trusted, it has disappeared from the face of the earth for a period of years, after which it returned again with all its former terrors. We have plenty analogy for such universal distribution of spinal organism. Take the mucous for example. All we have to do to produce them is to leave a bit of damp bread in the open air for a few hours and the molds promptly appear. Again it is not an uncommon thing to find the pneumococcus in the sputa of a healthy individual. This also is true of the diphtheria bacillus. Upon such grounds as these there is nothing preposterous in assuming universal distribution of the diplococcus intracellularis.

Now whether it is distributed through man's environment, or is harbored by his economy, is not quite clear. The ponderance of evidence is that it is in his environment. That the disease is of such a local nature, bears strong testimony to this. But on the other hand it has been sought for in fifty healthy individuals and found in two of them. One had been associated with the disease though, and so we will discard that one and still have its presence established in one in fifty. It is a striking coincidence also that the number of cases in the vicinity of Madison was to be the whole population as one to fifty, there being a population of about 1,500.

But be that as it may—the next question to answer is that if we accept universal distribution of the organism



why don't we encounter these more frequently? The answer is to be found in the laboratory. Bacteriologists well know that organisms—say the diphtheria bacillus for instance, grown under favorable conditions lose their virulence. They became so attenuated that they are not capable of over-coming to vital resistance encountered in the throat of the healthy individual. And this is why the diphtheria bacillus can be found in the healthy throat, or rather it is why the throat can remain healthy while harboring the germ. From this it would seem that it is the attenuated state of the diplococcus intracellularis and not its absence that accounts for the rarity of the disease.

Why then do we have it at all if the germ is in such an attenuated state? Again let the bacteriologist answer. These same attenuated organisms may be grown in successive cultures under optimum conditions, and their virulence increases. And that is why we so frequently encounter sporadic cases of diphtheria. The organism exists in the healthy throat which is not a good environment for it. But let the individual become weakened from exhaustion, cold, bronchitis, and he at once becomes a good culture medium for the germ, which now lights up in virulence and the individual has a case of diphtheria. This is also true in a general way of pneumonia. Why may it not be true of cerebro-spinal fever?

#### CONCLUSIONS.

The only rational interpretation of the phenomena observed that is consistent with all the facts, is embodied in the following brief summary:

1. That cerebro-spinal maningitis may be caused by sundry organisms, but *that cerebro-spinal fever is caused by the diplococcus intracellularis and that only.*
2. That this organism has a preference for the cerebral membranes, but does not necessarily attack them; consequently in any given case of cerebro-spinal fever, there may or may not be a cerebro-spinal lesion.

3. That the organism is widely distributed in nature but in an attenuated state.

4. That under certain combinations of environments, its virulence till it is capable of causing a sporadic case of cerebro-spinal fever.

5. That as this combination of environments extend to a whole community, the result is an epidemic which may be regarded as so many sporadic cases.

6. That it is not contagious, and when several cases occur in the same family or community, they all come from the same cause, and not from one another.

7. That in our present state of knowledge we have no effective means of preventing it, but there is no doubt that wholesome hygienic living will increase our vital resistance and render us less easy prey to this fell disease.

Since delivering the above report I have met with three more cases of cerebro-spinal meningitis. I have also heard of a few cases occurring in other parts of the State, about the same time of the outbreak at Madison. I mention them because they have an important bearing on the origin and distribution of the disease.

#### MOSQUITOES.

During the year I have collected mosquitoes at such places as my other duties chanced to take me—altogether at about sixty points. At some places I have spent several weeks and collected all the commoner species. At others I have spent only a few hours or a few days and have accordingly made limited searches.

All doubtful specimens have been sent to Mr. L. O. Howard, of the Bureau of Entomology, Washington, D. C., for identification.

According to a list furnished me by Mr. Howard, soon after I began collecting, there were nine species then known in Florida. Since that time the *Anopheles argyrotarsis* has been found in Kew West. To these I have added ten more, thus bringing the total number of species now known in the State up to twenty. It is not unlikely that other species will be found here from time to time.

It must not be inferred, however, that these twenty species are equally abundant, evenly distributed, or all represented in any one community. The greatest number that I have found in any one locality is nine, and in many places have found only two or three. In some places one predominates and in others, another. Some are pretty generally distributed over the State, while others seem to be confined to very restricted and isolated territories. I give the various species and their distribution as I have found them, but repeat that in many places the search has been very limited.

## DISEASE TRANSMITTERS.

1. *Antopheles crucians* (Weid.), Tallahassee, Live Oak, Jasper, Cocoa, Kissimmee, Orlando, Fort White and Oxford. Of the three species of *anopheles* now known in Florida, this one seems to be, by odds, the most abundant.

2. *Anopheles maculipennis* (Meig.), Kissimmee, Orlando and Fort White.

3. *Anopheles argyrotarsis* (Theob.) Key West (sent by Doctor Porter).

4. *Stegomyia Fasciatus* (Fabr.), Jacksonville, Lake City, Monticello, Fort White, Crestview, Cedar Key, Cocoa, Orlando and St. Augustine. I have also found this mosquito at many farm houses. Probably, next to the *Culex pipiens*, it is the most uniformly distributed species we have. The conditions under which it thrives seem to be fulfilled in every part of the State. In localities where it does not now exist there is every reason to believe it would flourish if once introduced. (It is to be remembered that this is the yellow fever carrier.)

## II. PESTS BY REASON OF THEIR ABUNDANCE AND FEROCITY.

5. *Culex pipiens* (Linn.), Jacksonville, Lake City, Live Oak, Tallahassee, Jasper, Monticello, Cedar Key, Crestview, Cocoa, St. Augustine, Palatka, Orlando,

Victoria, Oxford, Kissimmee, Gainesville, Ocala, and many farm houses. This is commonly known as the "house mosquito," and is the most generally distributed specie we have.

6. *Culex Teaniorhyncus* (Desv.), Cocoa, Rockledge, New Smyrna, Atlantic Beach and St. Augustine. This is the mosquito that appears in such swarms along the East Coast. It breeds in salt and brackish marshes. It may also breed in fresh water, according to Smith.

7. *Culex sollicitans* (Walk.) Reported from St. Augustine and Charlotte Harbor. This is also a salt marsh breeder.

## III. THE LESS IMPORTANT SPECIES ARE:

8. *Culex consobrinus* (Desv.), Daytona.

9. *Culex perturbans* (Walk.), Tallahassee, Lake City, Monticello, Jacksonville and Oxford.

10. *Culex triseriatus* (Say.) On St. Johns River, near Jacksonville.

11. *Culex serratus* (Theob.), on St. Johns River, Jacksonville.

12. *Culex nanus* (Coq.).

13. *Culex confirmatus* (Arrib.), on Santa Fe River, near Fort White.

14. *Culex scholasticus* (Theob.), on Santa Fee River, near Fort White. Found in West Indies, but not hitherto reported in Florida.

## DISTRIBUTION CONTINUED.

(Known in America.)

15. *Culex imiger* (Walk.), Cocoa and Crestview.

16. *Janthinesoma musica* (Say.), found on the St. Johns River, near Palatka and Jacksonville, and on the Sante Fee River, near Fort White. This seems to be a swamp species.

17. *Psorophora ciliata* (Fabr.), found in the woods near Cocoa, Fort White, Tavares and Starke. This is the



"gallinipper" with which it seems most people are more or less familiar. He is the largest of our known species and very handsome. He may be known by his size alone.

18. *Megarhinus rutilus* (Coq.), Georgia (Wm. Wittfield).

19. *Wyeomyia smithii* (Coq.).

20. *Melanoconion status* (Theob.), a small insignificant species, found on the Santa Fee River, interesting because it is the only specimen of this genus, so far as I know, reported in America.

NOTE:—The insect popularly known as the "blind mosquito" is found in the lake region of the State. It is not a mosquito at all, though in looks it resembles one. It does not bite but sometimes appears in such swarms as to become a nuisance.

There are two hundred and fifty species of mosquitoes in the British museum, collected from all parts of the earth. More than fifty species are known in America. New Jersey alone has thirty-five.

Preventable  
diseases

From the foregoing accounts of the sanitary status of the State, and from the tables, elsewhere given in this report, it is learned that of the preventable disorders, smallpox and diphtheria have given the State Board of Health the most concern and worry to control and suppress. The economic side of the question of management, has also caused much disturbing thought and serious deliberation, because both disease being preventable—if measures offered by the Board are accepted and used—additional cases after the initial case (generally of importation), need never occur, and indeed, in the matter of smallpox outbreaks, should not happen at all if vaccination is accepted and successfully performed.

How to  
control

Therefore, the State Board of Health finds itself confronted with a most difficult problem, in its efforts to rid the State of two diseases of a typical contagious type; either to continue the course followed heretofore in the management of these disorders, which being

preventable to a great degree, seemingly cause a needless expenditure of public funds, or in the matter of smallpox extermination especially, to earnestly endeavor to influence public sentiment and public legislation towards measures compulsory in their methods and disposition, which when faithfully carried out will assuredly bring about satisfactory results both in a destruction of the producing cause as well as in attendant expense of treatment. Antidiphtheritic serum when administered sufficiently early in diphtheria will prevent a fatal result, so too will the remedy cause immunity against an attack to those exposed. The concensus of opinion of physicians is that the administration of the antidote is a harmless procedure, never causing ill results, and even in simple sore throat (follicular tonsillitis), is productive of speedy relief and quick return to health. It is not understood therefore why any delay should occur in prescribing the serum when symptoms of a doubtful nature manifest themselves, or why a "wait" should be advised or permitted until the laboratory makes an examination of the specimens and decides the doubt. Oftentimes it is then too late to arrest the course of disease, and the little patient dies, while the profession is wrangling over the diagnosis. The expression of surprise at any lagging in giving the remedy is warrantable, when it is mentioned that well-regulated drugstores everywhere in the State constantly keep in stock the different antitoxins, especially that of diphtheria, and that the State pays for the serum on the attending physician's certificate that the patient is indigent or unable to purchase such a costly drug. Diphtheria antitoxin is considered a specific when early given in the disease, and being ever on hand, easily obtainable even by the poor, and harmless in effect, it would seem to be almost criminal negligence to omit its use when the slightest doubt exists as to the true character of a throat trouble. Diphtheria next to smallpox is the easiest of all the preventable diseases to intercept and suppress in its spread. If experience in dealing with contagious maladies has taught anything,

Anti-  
diphtheritic  
serum as an  
antidote of  
diphtheria

it has certainly demonstrated two truths, and being truths are indisputable facts that antidiphtheritic serum early given cures and prevents diphtheria, and that vaccination when successfully done, prevents smallpox. Therefore it may be asked with pertinent reason, if these statements are undeniably true, why the State should not adopt, employ, and enforce measures which have passed the stage of experiment and entered into the authority of fact, against disease which yearly make many sorrowful households, and to not a few, helpless suffering, and invalidism, for future time.

The Board by  
donation of  
anti-toxin  
saves lives

In this connection, it is pleasing to recite that the State Board of Health was able by a liberal donation of antidiphtheritic serum to save the lives of several children in one family during the past year, which although somewhat costly—\$125—the money part of the transaction sank into petty insignificance when compared with the saving of life by a wonderful achievement of science when discovering a remedy so potent against a deadly disorder, and the still more beneficent provision of the State, exercised through the instrumentality of an institution purposely organized to supervise and care for the health of the people.

The records of the office show that there were 145 cases of diphtheria reported to the Board with 18 deaths. Ages and sexes of decedents of this disease are given in tables elsewhere in this report.

Number of cases of diphtheria reported from the several counties respectively, with cost of diphtheritic antitoxin:

COUNTY.	CASES.
Alachua .....	8
Brevard .....	3
DeSoto .....	3
Duval .....	59
Escambia .....	20
Hillsborough .....	36
Leon .....	7
Manatee .....	4
Putnam .....	3
Santa Rosa .....	2
Total .....	145

Cost of antitoxin distributed to indigent patients, \$320.94.

Smallpox has caused the Board more worry, during the past year, and uneasiness to treat or to manage than any other of the preventable disease, or any unsanitary conditions to quiet. It has been exceedingly mild in type, producing but few deaths. The negro race has suffered more in number of cases than the whites, and the fatalities have occurred at the extremes of life, the very old, or the very young. The very mildness of the trouble has been the greatest danger and source of spread of the disease, for its existence produced no alarm, nor more than casual comment because of the very trivial discomfort and almost non-enforced absence from daily duties which its presence in a community occasioned. Occasionally however, a confluent case happened, and it was these severe occurrences which, as mentioned, were rare, that created a "scare" leading to telegraphic information to the Board.

During 1904 smallpox has been reported from thirty counties in the State, and the number of cases to which the attention of the Board has been invited is 973 with 7 deaths. This does not it is thought represent the total sick from this cause during the year, for the disease was so mild in character that it is quite probable that many

Smallpox  
occurrences



suffered an attack and recovered who were never reported or had any medical attention whatsoever. Indeed, time and time again, when a more virulent type of the disorder manifested itself, especially among the whites, a special agent of the Board investigating the case, would find that smallpox had been generally prevalent among the negroes of the community for some time previously, but occasioned so little discomfort as to attract but passing notice. Of the reported cases but 38 were white, the remainder being negroes.

For many years, and in fact from the very inception of sanitary work in Florida by the State Board of Health, the importance of actively urging preventive and protective measures against smallpox, its introduction and spread, has been dwelt upon in the annual communications from this office and vaccination as *the* only certain means of ridding the country of the pest, has continuously been insisted upon. Repeating what was said in the last annual report when speaking on this subject:

Vaccination  
does prevent  
smallpox

"Smallpox can be prevented by vaccination, properly and successfully done. This fact is so accepted as a truism, that in times of danger from this disease, when prevailing in any community, there are but few who will have the temerity to refuse the protection which the operation is known to give. But why some will wait for the loathsome disorder to threaten an attack before protecting themselves or their families is one of the puzzling enigmas of indifferent domestic hygiene, and ignoring of measures intended to prevent disease. So much has already been said in previous reports of this nature, concerning the protective quality of vaccination against smallpox and the blessings of which the discovery of Jenner in 1798 conferred upon the human family, that possibly any further discussion of the subject might be tiresome to the reading public, but the opportunity cannot be neglected whenever occasion offers to direct public thought in this matter, for the duty of the sanitarian and State Board of Health is to advise and instruct the people upon sanitary and hygienic facts which have

been proven by long and patient experience. Statistics obtained from smallpox hospitals, from physicians generally and of our own Board, very positively show that persons with smallpox, either have never been vaccinated, or have very imperfect and doubtful evidence of having had the operation performed. Indeed, since the public is incited to crime by information about the different "pathies," how to produce a scar resembling vaccination," in order to deceive the public health officers, it is to be wondered, as *American Medicine* very aptly remarked in a recent editorial on the subject, "How much of the vogue of heresy has been due to the falsified statistics and the spread of the disease through the makers of scars resembling vaccination." Until the nation takes this matter up and seriously considers it, by enacting and rigidly enforcing a compulsory vaccination law, smallpox will continue to exist in this country, and lives be sacrificed to an unreasonable and foolish prejudice, to say nothing of the unsightly faces which are multiplied each year from this disease."

The opposition to vaccination evidently comes from ignorance, and self-opinionated prejudice, for it scarcely seems to be possible that any intelligent person who has carefully studied the question from an earnest desire to obtain the truth in regard to how much or how far vaccination does actually protect or prevent smallpox, and wishes to form an unbiased understanding and decision on the subject, but will from the long array of facts and instances presented, be assuredly convinced that when vaccination is successfully performed, the danger of contracting smallpox is reduced to an inappreciable minimum, and secondly, that when carefully done, heeding and providing against every possibly contingency of septic contamination of the wound, the percentage of bad arms, painful sores, and personal discomfort is insignificant to the protective value and positive immunity obtained against a most loathsome disorder.

The liberty of the citizens is attacked cries the politician, and the personal rights of the individual are in-

Opposition to  
vaccination  
unreasonable

vaded says the legislator, when vaccination is enforced, (although in the protective interest of a whole community), when each is appealed to for assistance in compulsory enactment of this character. Has the citizen the liberty under the Constitution, to kill? And has the individual a legal or moral right to be a contributory factor in distributing disease and perhaps death to his neighbor? Yet, by yielding to the fanatical demands of a prejudiced few, whose opposition has no sensible or reasonable grounds for persistence, the law-makers of the county, otherwise seemingly ever willing and eager to offer protection to every industry, to commerce, and even to the brute creation against disease, in fact, to everything animate or inanimate, except the health of man, indifferently treat the question of protection to the human against smallpox, and passively dismisses the subject on the ground of constitutional objection.

In speaking on this subject—smallpox and vaccination—before the last conference of State Boards of Health with the Surgeon General of the Public Health and Marine-Hospital Service, Dr. Herty, the able secretary of the State Board of Health of Indiana, remarked that the sanitarian of today had very little to hope for in expectation of immediate eradication of smallpox from the United States, because of rapid travel, unceasing movement of the people, and the long period of incubation of the disease after exposure, and that until the masses are educated to the necessity for vaccination as a sure prevention against smallpox, and the people impress that belief upon the law-makers, with a demand for a compulsory requirement of this nature, smallpox will continue to appear with more or less frequency and severity, depending entirely upon the immunity gained by successful or repeated vaccination, or by an attack of the disease.

When smallpox became generally prevalent in the United States, some years ago, Florida enjoyed a peculiar exemption for several seasons, due it was thought, to vigilance and watchfulness, and in a great measure to a persistent effort to vaccinate the population. One of

Large industries in State contributing factor to spread of smallpox

the first measures sought to be placed in operation, after the State Board of Health was organized in 1889, was a vaccination of school children and operatives in factories and other institutions where a large number of persons are employed. As soon as however the natural advantages of the State to successfully carry on various industries was recognized, and large bodies of laborers were introduced, from the States immediately to the north of Florida, for phosphate mines, saw milling, naval stores and railroad construction, where smallpox prevailed and where the disease was not cared for or restrained, it appeared in several counties and places in the State, particularly at or near the site of phosphate mines, or naval store camps. Almost in every instance the disease was directly traced to an importation from another State, and from the statements of Special Agents who have been engaged in the management of many outbreaks, it is learned that the majority of the cases of smallpox occurring in Florida during 1904, could be traced to importation by negro labor from Alabama or Georgia. The large industrial plants, of phosphate and naval stores, which have so materially contributed to the commercial importance and prosperity of Florida, have also furnished a large number of cases of smallpox for the State Board to care for and manage. In several instances where these plants have come into the State from adjoining States, in their entirety, cases of smallpox have developed astonishingly soon after locating here, showing very clearly that the infection came with the operatives and was not contracted after arrival. The northern border line of the counties between Alabama and Georgia have scarcely been free of smallpox infection for several years. As soon as the disease is thought to be stamped out and controlled, fresh infection crosses the line and starts up another outbreak. From the Chattahoochee river to the Perdido river at the extreme western limit of the State, a Special Agent of the Board has been kept constantly busy during the past year, both in investigating rumors of smallpox and in actual manage-



ment of cases which have been discovered. The plantation counties in the middle and western part of the State, with their large negro population, have incubated, it may be truly said, over 450 cases during the past twelve months. The infection introduced across the border line by negroes from adjoining States, whose labor is invited by the necessities of cotton growing, tobacco planting and other equally as important industries, in the production of which there is a constant demand for a large number of laborers, was kept concealed through the natural secretive tendency of the negro, until the white people of the neighborhood, becoming frightened at the general prevalence of pox-marked faces, made telegraphic report to the Board, and an investigation then brought out startling facts of smallpox existence on the plantations probably for several months, undisturbed, uncared for, and indifferently thought of, because of the mildness of the trouble.

Opposition to vaccination by operators of large industrial plants

Co-operative assistance from the management of the large industries already alluded to, has always been given in isolating and caring for the sick of smallpox, but when measures are recommended looking to the protection of the well, or to immunize those having had a limited exposure, and vaccination of every one connected with the plant or residing in the settlement is advised and insisted upon, as being the only certain method to stop a spread of the disease, an opposition too often manifests itself, actuated solely by selfish motives; the possible loss of time of the laborer from a sore arm, which opposition oftentimes amounts to defiant resistance. An instance of this character has quite recently been reported by Dr. Diggett, a Special Agent of the Board, who has been looking after an outbreak of smallpox in Alachua County. He says, "I am meeting with a great deal of opposition at that point (Williford), my principal opponent being a Mr. T., an ex-member of the Legislature of 1901. He seems to be well informed about the laws regarding vaccination, and as he employs some one hundred negroes in his camp, and refuses to allow me to

vaccinate any one of them, the situation is a very difficult one for me to handle. I also met this evening on my way to Bell, a Mr. F., also from that town, who employs a number of men in his camp. He was very emphatic in his refusal to allow me to vaccinate, and used some strong language towards the State Board of Health; in fact, defied me to vaccinate any of his crew, using threatening language."

It can be understood, therefore, that the efforts to destroy smallpox infection in the State, or to at least control and limit the spread of the infection has not been altogether encouraging, in fact, in many instances, are very discouraging, because results do not seem to be obtained such as might be expected from the strenuous exertions put forth by the Board, and it is plain to see that if smallpox is to be controlled in Florida and the consequent expense lessened in the care and supervision of the cases, additional legislation must be enacted, whereby the management of the large industries which are scattered over the State, shall be obliged to have their employees vaccinated before employment and before being imported from other States, or be compelled, under legal restraint to assume the expense under the management and supervision of the State Board of Health, of every case of smallpox occurring in their employ.

Considerable space has been given to the subject of smallpox prevalence in the State during the past year, and to vaccination as a protective measure, because of the importance of the topic both from a public hygienic as well as from a financial standpoint. It is a question of paramount importance to the Board to consider at the approaching annual meeting, when it is hoped that certain recommendations may be made to the Legislature convening this year, to lessen an opportunity for smallpox to occur and to spread, as well as to relieve a burden of expense which under compulsory enactment of vaccination could be very well lightened.

In the following tables may be found the number of smallpox cases occurring in the several counties of the

State for the year 1904, with the expense of each occurrence, and the cost of vaccine virus which has been supplied without charge to any citizen or community making request, viz:

*Number of cases of smallpox occurring in the several counties of the State during 1904, expenses of management in each county respectively, with cost of vaccine virus:*

Alachua . . . . .	7	\$ 109.10
Baker. . . . .	3 (No expense.)	
Brevard . . . . .	11	112.10
Bradford . . . . .	11 (No expense.)	
Citrus. . . . .	8	24.20
Columbia . . . . .	51	43.25
DeSoto . . . . .	4	37.90
Duval. . . . .	98 (Including salary of guard and nurse, \$540)	1,169.51
Escambia. . . . .	131 (Includ'g sal. grd. \$300)	427.96
Gadsden . . . . .	53	16.00
Hamilton . . . . .	3	11.00
Hillsboro . . . . .	20 (Includ'g sal. g'r'd \$240)	533.75
Jackson . . . . .	104	7.00
Jefferson . . . . .	97	53.70
Levy. . . . .	32	36.88
Leon. . . . .	20	202.34
Monroe, (Salary of guard at hospital, no cases)		120.00
Marion . . . . .	15	146.45
Madison . . . . .	12	36.40
Manatee . . . . .	4	10.25
Nassau . . . . .	56	966.55
Orange . . . . .	30	11.30
Osceola . . . . .	4	16.00
Polk . . . . .	4	38.00
Putnam . . . . .	30	86.15
St. Johns. . . . .	11 (I'e'g Rainey claim, \$200)	235.60
Suwannee. . . . .	10 (No expense)	

Volusia . . . . .	16	204.47
Walton . . . . .	81	112.02
Washington . . . . .	50 (No expense)	
973 cases.		\$4,757.98
Cost of Vaccine Virus . . . . .		\$ 978.11
		\$5,736.09

#### E. W. WARREN.

On the second day of January, I was directed to go to Palatka and fumigate the office of the Selden Cypress Door Company. Their former bookkeeper had died of tuberculosis, something like a year before. Their first assistant was then promoted, and had in a few months contracted the disease, and at the time that I was there, he was in Arizona seeking relief from the infection.

The management of the company came to the conclusion that their offices were infected, and that the lives of all who worked in or around the offices were in jeopardy, so, they asked the State Board of Health to fumigate.

On January 5th I received a communication from <sup>Typhoid fever.</sup> Bartow the office, directing me to Bartow, to investigate reports of an epidemic of fever at that place. I had been at Bartow in November and December of 1903, and when I left there on December 8th, this fever was beginning to appear. Mr. Warren Tyler had already contracted it and died a few days later. On my arrival there on the morning of the 6th of January, I interviewed the various physicians and city authorities, and found 64 cases of fever on hand by actual count; some had died before my arrival and several had recovered. During the entire epidemic there were 250 cases. I visited that day, together with Drs. F. M. Wilson and J. A. Garrard, a great many cases, and every case I saw was typhoid of a pronounced type. There had been some difference of



opinion among the public, owing to the fact that here and there were cases of malaria along with the typhoid, but a great many of the cases were typical typhoid.

Source of  
contamina-  
tion

Water  
supply

The first problem that presented itself for our consideration was to find where this fever came from, where the infection existed; and of course, the first thought was the water supply. A few thought it came from work on certain streets which had been done in the previous spring, nine months back, but the cases did not confine themselves to the few streets that had been worked; they were distributed in all quarters of the town and in a few country families, and for that reason, the infection could not have been confined to certain mains, or from the carelessness of any one family in not disinfecting its premises. Specimens of the water from the artesian well were sent to the laboratory of the State Board of Health and thorough tests made. The bacteriologist did not find the baccillus of typhoid fever, but he did find the baccillus coli communis, showing that the water supply was contaminated by the contents of cess pools, or waterclosets, or other such source, proving that the infection came from the well and not from any of the mains. Various school children who came in from the country contracted the fever, and were carried home. No other cases occurring in their families. Every person who had the fever was known to have used the city water beforehand.

On receiving the report from the bacteriologist on the specimen of water, I conferred with the Mayor, Mr. C. E. Baley, and asked that he issue a proclamation, calling on all the citizens of the city to boil the drinking water before using. He did so, and the people for the most part observed the request of the mayor, and the cases soon began to decrease, and with other minor precautions, extended prevalence was controlled. Many families fortunately had followed the advice of their physicians and had been boiling their water all along, and it is notable that not a case of fever occurred in those families.

Another problem was, how did the infection reach the well? A study of the topography of the city explains that fully, I think, together with other existing conditions. The city has not adequate sewerage, only surface drainage. The well is situated a block north of the business centre of the town, and is 180 feet deep, and has a caisson extending down 80 feet. Just north of the well, 150 yards, is a kind of pond or lagoon into which that section of the town is drained. In the southwestern section is a low filthy meadow in the centre of which was dug a cesspool or well forty feet deep to drain it. All the water closets and stables after heavy rains would be drained into this well. It emitted a very foul odor. In the eastern part of the town is a sink hole into which water often runs, pours and disappears. The epidemic of fever made its appearance about two and a half months after that fearful storm along the West Coast on September 12th. During the storm the surface of the town was literally washed off into these three depressions. The well being situated between the three and constantly drawing water almost without stopping at all, it is perfectly reasonable to suppose that, being as shallow as it was, the water from those places furnished a part of its supply.

At my suggestion, the cesspool in that meadow was filled up. As soon as it was determined that the water supply was contaminated, the city authorities took steps to have a new well dug which was to go two thousand feet deep if necessary to get good water. This fever was of a peculiarly malignant type. I saw few mild cases, most of them were severe; typanites very pronounced in all, fevers running high and holding on for long times.

The death list amounted to eleven. The epidemic lasted about two and half to three months.

On January 17th, Dr. J. P. Tomlinson, of Lake Fatalities  
Butler, reported a case of suspicious character. I was directed to go there, which I did and found it to be chickenpox. I went from there to Omega, Fla., where

Dr. R. M. Ware reported a case of smallpox at a turpentine still. The patient had about recovered, but had circulated pretty freely with the other laborers, so I vaccinated all of them and left the case in charge of Doctor Ware. Despite the exposure of all the other hands at the mill, not another case occurred, owing to the vaccination.

Smallpox  
Marion  
County

On January 22d, Dr. Wm. Griffith, of Dunnellon, Fla., reported a case of smallpox at a turpentine still. I was detailed to look into it. I reached Dunnellon on the 23d, and on the 24th, Doctor Griffith and I drove to the turpentine place, twelve miles away, and found the case to be semi-confluent. The case had already been quarantined and a nurse placed with him by Doctor Griffith, and the owner of the place had already taken the precaution to vaccinate all but half a dozen or so of the laborers; we finished them up that day. Doctor Griffith is to be commended for the thorough way in which he managed the situation, preventing any spread in a camp where something like 120 negroes (laborers) were all exposed to the case that was going around for several days after the appearance of the eruption.

Smallpox  
DeSoto  
County

On arranging with Doctor Griffith for the further management of this case, I went to Arcadia where Dr. R. L. Cline had reported a case at a turpentine camp. The management of this industry acted in an exceedingly indifferent manner, refusing to allow Doctor Cline to vaccinate their laborers and acting in rather an offensive manner to me when I went to see the case, but agreed for me to vaccinate if I thought it necessary. This, as well as the case from Dunnellon, were imported one from Georgia and the other from North Carolina. Note the difference in the managers of the two camps; the one at Dunnellon doing all he could to assist Doctor Griffith to stamp it out, the one at Arcadia doing all he could to prevent us from interfering with the case, notwithstanding he had imported unvaccinated labor in violation of the law.

From here I went to Punta Gorda, conferring with Dr. D. N. McQueen in regard to a case he reported in a railroad construction camp, half way to Fort Myers. This case had been carefully isolated and was very well-cared for by the railroad people. I went on and found the authorities at Fort Myers had quarantined against the railroad people, thus causing some inconvenience. I explained to the county commissioners and town authorities that the situation was perfectly safe, and they raised the quarantine immediately. I went back to Arcadia and released the patient and fumigated the house. The next day a telegram from the office advised me to go to Lake Helen, which I did, and found one case about recovered, in the camp of the E. W. Bond Lumber Company. I found that prior to this there had been about fifty cases in their camp that had not been reported. I vaccinated about twenty or thirty of their laborers.

Smallpox  
Lee County

A telegram was awaiting me there, reporting a case of smallpox at Seville. I went there and found that Dr. J. C. Styles had a case on hand, and that he and County Commissioner W. R. McBride had moved the patient and entire family five miles out on Lake George, over the worst possible roads. I remarked to Mr. McBride that he had incurred unnecessary expense in moving him so far away. Without taking any charge of the case whatever, I told Mr. McBride that I would go and see him the next morning, which I did and found that he had had a semi-confluent case, but was then recovered, only needed to stay a few days longer to allow desquamation to be completed. The family had been successfully vaccinated. I saw no reason for the State Board of Health to take hold of the case, as nothing was needed to be done except to fumigate the house and clothing of the family, and I explained to Dr. Styles how that could be done with the expense of only ten pounds of sulphur, by requiring the family to do the work. Mr. McBride had promised to meet me on my return to Seville, but he did not do so, so I wrote him stating what I had done. Dr. Styles had been employed by the county. I report

Smallpox  
Volusia  
County



this case in minute detail, on account of a misunderstanding later on, by which the county expected Dr. Styles' bill to be paid by the State Board of Health.

Smallpox  
Duval  
County

While at Seville, I had a telegram, asking me to go to Wahoe, in Sumpter County, to investigate a report from the postmaster, concerning some eruptive cases in that vicinity, which on investigation turned out to be measles. On February 16th smallpox was reported at New Berlin, near the mouth of St. Johns River, among the crew of the dredging company, which was building a jetty at New Berlin. On account of the illness of Dr. J. N. Cloud, the local agent of the Board for Duval County, I was asked to look after it. I secured a tugboat and visited the locality, and found three cases of smallpox on the scow, on which were twenty-six laborers, all negroes. I put them all into two yawls and took them up to Phoenix Park, landed and took them across the country to the hospital at the Sand Hills. They had been previously vaccinated by Dr. Cloud.

Smallpox  
St. Johns  
County

On February 17th I went to St. Augustine in response to a report from Dr. DeWitt Webb, of smallpox at a turpentine camp on Palicer Creek, eighteen miles south of St. Augustine. When I reached the camp I found that Mr. Mattox, the owner, had built two cabins half a mile away and isolated his cases there, and was giving them the best of attention. Only a few cases occurred at his place.

Smallpox  
Lake County

On the 19th of February I received a telegram from the office, directing me to look after smallpox that had broken out among the negroes at Eustis, Fla. I went there and found only one case of any consequence, and two very mild ones. Considerable excitement existed. However, I quarantined the patients and vaccinated all those living in the vicinity of them. On the 23d I arranged for the management of those cases, and in response to telegram, I went to Palatka. Dr. A. M. Steen had reported a case, and when I got there, people were

much excited; nobody seemed inclined to take any steps in the matter except to wire the State Board of Health every few hours. It was a semi-confluent case in a parturient woman (colored). She recovered nicely. This case was on Lemon Street in a very thickly settled section. I failed to get a place to move her to, so I treated her where she developed, and no other cases resulted. On the 29th I arranged for the temporary management of this case, and went to Mount Dora, to see a case reported by Dr. T. N. Lewis, but when I arrived there the case was entirely well. I went on to Eustis, finished my work there, then went to Minneola and Clermont where there was some uneasiness about smallpox, but I found none. In the meantime, the midwife, who had delivered the woman in Palatka who had smallpox, a few days prior to her attack, came down with the disease. I returned and isolated her. I remained at Palatka until March the 24th when I went to Istachatta to look into reports of smallpox. The cases had all recovered when I reached there. I returned to Palatka, and on the 28th of March I went to Pomona and found one case of smallpox, which I left in charge of Doctor Peck.

Smallpox  
Volusia  
County again

On the 29th of March I went to Dunnellon, to investigate a report of a sanitary nuisance, which I found to be of little importance. On the 3d of April I went to Otter Creek, where a mad dog had been creating considerable disturbance. The excitement was all over when I got there. Reports were varying: some excitable, others calm; I think there had been little real danger. A few dogs that had acted in a suspicious manner had been killed.

Mad dog  
Dunnellon

On April 23d, Dr. A. M. Steen reported another case at Palatka, this was in a white family and very mild. The people there were now getting more accustomed to smallpox reports, and the excitement was notably less.

I went to Kissimmee on the 29th of April to confer with Dr. T. G. Thomas in regard to a case, but the trouble had not been discovered until it reached the stage of

desquamation, consequently he was entirely well when I got there. I did, however, find one case at a turpentine still, some twenty miles from Kissimmee, which I arranged for.

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DR. J. FRANK CURTIS.

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Baker  
County

The general health of Baker County people for the past year has been good.

*Contagious Diseases.*—About the latter part of April three prisoners were brought here and lodged in the county jail, arriving about dark. The next morning the sheriff called me to see them as he said they were "broken out" with an eruption. I found two of them well developed cases of discrete smallpox, and immediately communicated with the State Board of Health, when a special agent was sent, and jail quarantined. The third prisoner developed smallpox later, but there was no other spread of the disease. All three were colored. They were placed in jail to await trial before a justice of the peace in another part of the county, and when the time came for their trial they were taken from the jail and carried before the justice of the peace before they were released from quarantine, and returned to the jail after being away all night. Special Agent Byrd was here after they had left the jail and protested vigorously against the act of the county officers in taking them away before quarantine was off. Along those lines, I feel that the Board of Health should make itself respected, and if there is no law against State or county officers interfering with quarantine, we should have such a law passed and enforce it in every case where it is violated.

The cost of medical treatment for these three cases (exclusive of the Board of Health Special Agent), was \$15.00, which the county paid.

*Vital Statistics.*—Is a step in the right direction, and would suggest that in a county such as this one a number of "Board of Health Rules" be distributed and

under the direction of the county registrar, for the enlightenment of the people. I have generally found that the people are willing to assist in such useful measures, but they must be made to understand what is wanted, and literature is far more valuable than verbal instructions.

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REPORT OF DR. R. L. CLINE.

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While there has been much sickness throughout DeSoto County during the year 1904, we have had no widespread epidemics.

We had an unusual amount of fevers, more Typhoid fever than ever before, and many severe cases, though but few deaths.

So far as I know, we had only eight cases of diphtheria. The cases were all mild; one death from subsequent nephritis. Antitoxin used in one case with good results.

I know of only a few cases of tuberculosis, and three deaths.

During the latter part of 1903 we had a very wide spread of epidemic of measles, that lapsed over into this year. It was a mild type, though some complicated with diarrhea and pneumonia.

Two cases of smallpox in negroes, one case coming from Georgia; the other's source I do not know.

During the months of October, November and December, we had a few cases of whooping cough, with one death in an infant.

After consulting other physicians, we have concluded that 80 per cent to 90 per cent of the children of this county have hookworm. We have treated a great many cases with good results.

DeSoto  
County



## DR. W. T. ELMORE.

Duval  
County

The general health of Duval County has been unusually good, with special reference to communicable diseases. This may be attributed to the efficient work of the State and City Boards of Health, and the cooperation of the physicians with this body.

This city, which furnishes the greatest population of Duval County, had been reconstructed in a measure, since the fire of 1901, and the sanitary conditions much improved, both in the structure of the buildings and a more efficient sewerage system.

Pablo Beach has had its local sanitary inspector to enforce the sanitary rules during the summer season.

The county ditches in the vicinity of Baldwin have been deepened to effect more thorough drainage.

The State hospital for white patients in Duval County was commenced in 1903 and completed in 1904, and will admit fifty patients suffering from contagious diseases.

Below I submit a tabulated statement of the cases of smallpox treated at the State hospital in Duval County for the year 1904:

Number of patients admitted .....	98	
Number of patients discharged .....		91
Deaths none.		
Number of patients remaining in the hospital.		
January 1, 1905.....	7	
	98	98

Number of patients not vaccinated, who had smallpox.	45
Number of patients vaccinated, who had smallpox....	14
Number vaccinated, who had no smallpox.....	39

98

The primary origin of the disease can be traced to Georgia, having been brought into Florida through the floating labor element, who work in the turpentine camps.

Vaccination, we all know, unquestionably decreases smallpox to a marked degree, and under aseptic technique, septic constitutional symptoms are reduced to a minimum. As we overcome the prejudice of bad results of vaccination prevalent among the laity, and enforce vaccination measures rigidly, it is only a question of time before the disease will be eliminated altogether. It is more prevalent among the negro race, and, from the history of cases, is usually spread by actual contagion.

Tuberculosis has had its usual number of victims and has existed with the negro race in the majority of cases, the mortality being 75 per cent as compared with the white race. The negro race seems to be peculiarly susceptible to the disease, and they succumb more quickly. This fact is due to their mode of living.

We have had no scarlet fever.

Few cases of measles have been reported, and so many cases being mild, did not require the services of a physician, hence were not reported.

We have had some diphtheria, but the disease has been mild, death resulting in one or two cases only.

Typhoid fever has been reduced on account of the improved sanitary measures. The mortality has been small.

## DR. WARREN E. ANDERSON.

Health conditions in Escambia County have improved somewhat during the past year. Malarial fever, measles and whooping-cough have occurred in some portions of the county, but have not been marked by any general distribution or severity.

*Typhoid Fever.*—This disease prevailing principally within the corporate line of the city of Pensacola, has

Escambia  
County

shown a very decided decrease for the year. I believe this is due not only to improved sanitation, but partly at least to the greater efforts on the part of the medical profession in instructing the people in matters of personal hygiene and preventive medicine. Missionary work of this kind is not however confined to this disease alone, but the timely suggestion and intelligent advice of the attending physician contributes largely to the abatement of many of our acute diseases.

*Pulmonary Tuberculosis.*—A slight falling off in the number of death from this cause is noted—about 12 per cent; but it is probable that much of this apparent decrease is due to inaccuracies in diagnosis, and a growing aversion on the part of relatives of the afflicted to having a certificate of death labelled "Consumption." Against this feeling the attending physician is not always able to contend. In the city of Pensacola, there were thirty-two (32) deaths during 1904—equally divided as to the cause.

*Smallpox.*—For several years in the immediate past this county has been sorely punished by invasions of this disease, but I am able to report that since the first of September last, there has been only one case recorded. It would appear from this that an exhaustion of material has occurred at the centre of distribution—the adjoining State of Alabama—either by vaccination, or a general immunizing of the population by an attack of the disease. Since the first of January 1904, there have been 131 cases reported in this county, with two deaths—both negroes—one in the Isolation Hospital, and the other in the city. Of the total number of cases, 33 were white and 98 colored; 30 were treated in the Isolation Hospital at an expense of \$80.56 for medicine and provisions. The expense of investigating cases of this disease in this and the adjoining county of Santa Rosa, was \$42.60 for the year just closed.

*Diphtheria.*—Since the establishment of the bacteriological laboratory by the State Board of Health the early recognition of this disease has rendered it easily possible

to suppress each successive outbreak as it appeared. The total number of cases (20) is about one-half as many as for the year before, and the mortality, owing to the early and free use of antitoxin, is still much less; there was only one death reported—a negro boy—in a dying condition when seen by the physician.

*Scarlet Fever.*—For some reason unknown to me, there has been a great decrease in the number of cases of this disease. Four only were reported for the entire year. All were among white children and none were fatal.

*Disinfections.*—During the year 1904, 83 dwellings, 9 box-cars were disinfected for smallpox, 20 rooms for diphtheria, 4 for scarlet fever, and 14 for tuberculosis, making a total of 130 disinfections of habitations at an expense in material—sulphur and bi-chloride of mercury of \$32.55.

*Transportation Permits.*—Of these, 70 were issued to undertakers during the year just closed.

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DR. G. W. LAMAR.

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Replying to yours of recent date that I give you a short account of what "has been" in Gadsden County during the past twelve months, would say that of necessity my report must be short, for this county has "been distressingly" healthy for sometime past. Nothing of a contagious nature, except a few cases of smallpox, which were well handled by your special agent, Dr. R. F. Goddard.

The water supply has been everything except what it should have been, but we hope ere another summer comes to have that righted.

I find the people becoming more and more educated daily along the line of sanitation and sanitary measures, and stand ready at all times to aid the State Board of Health in any matter pertaining to the health of a community.

Gadsden  
County



## DR. CHAS. W. BARTLETT.

Hillsborough  
County

The prevalence of infectious and contagious diseases in the County of Hillsborough, State of Florida, during the year 1904, has been greater than in any of the past four years. During the year we have had scarlet fever, diphtheria, smallpox, typhoid fever and dengue.

The number of cases of scarlet fever were few compared with outbreaks of previous years. During the early part of 1904 there were a few cases, and four cases in November. Since then there has not been a single case reported.

While we have not had an epidemic of diphtheria it has prevailed somewhat throughout the county during the greater part of the year. Where death has resulted from this disease it has been due, in those cases which have come to my knowledge, to a lack of the use of serum or because antitoxin was employed too late in the disease. The following case proves the benefit derived from the administration of anti-diphtheritic serum by the State Board of Health.

The agent was called to see a child, three years old, when he arrived he found the patient in a preagonic condition. This child had been sick eight days and its parents had not summoned a physician because they were not able to pay for the service. The anti-diphtheritic serum was administered, but too late to do any good and the child died. The sister of the child, a little girl five years old, was in the fifth day of the disease and in very bad condition. Large doses of the serum were administered to her and she recovered. Were it not for this medicine I am sure that the little girl would have shared the fate of her brother.

Typhoid fever has also prevailed, to some extent, and notwithstanding the fact that the public water supply of the city of Tampa was contaminated with one of the species of bacillus coli-communis, there was no marked epidemic, and the cases were not limited to any one section of the city. During the year, as in the year

preceding, the cases were better diagnosed, due to the examination of blood for Widal reaction by the laboratory of the State Board of Health. The agent for Hillsborough County had a case which emphasizes the above statement. I was called to see a lady, Mrs. F. W., at Gary, Fla., and, having been under my treatment before, I knew had tuberculosis, had been experiencing increased temperature, and it looked as if the attack of fever from which she was suffering was due to the tuberculosis, which I am sure would have been the only diagnosis made had it not been for the examination made for Widal reaction, which proved a case of typhoid in a tuberculous patient. The woman got well of the typhoid but the slight fever continued, due to the tubercle bacillus. In this case I could advise the family as to the precaution necessary with stools, etc., and also assure them that if she recovered it would be but a question of a few weeks, as typhoid fever was of shorter duration than tuberculosis. With the diagnosis of tuberculosis alone I doubt that she would have gotten well, as the treatment would have been directed to the tuberculosis, and had she died, her death would have been attributed to the wrong disease.

Smallpox has prevailed more generally in Hillsborough County this year than any before during my connection with the State Board of Health. The majority of cases have come to my knowledge when they were nearly well or completely cured, and after having had the opportunity of infecting others. To this is due the difficulty of preventing the disease in Tampa. The most of the cases in this county have been at Pelot, Turkey Creek and Valrico, and on account of the distance of these places from the hospital, one being twenty-four miles, and the way in which the negroes live at the turpentine camps, and the failure to make prompt reports, it was difficult and practically impossible to suppress the disease at these places, and its care and treatment also entailed an increased expense to the State Board of Health.

I am sorry to say that during this year there has been a noted decrease in the number of persons applying for vaccination.

During the summer and a few days after receiving information from the State Health Officer that there was an epidemic of dengue in Key West, this disease appeared in Tampa, and it was the most general epidemic that has occurred in this city during the eleven years of my residence here. There were very few families which escaped entirely without some member having it, but fortunately, very few cases were of a severe character and none died.

The deaths from tuberculosis in Tampa and vicinity during the past year were seventy-five. It is too soon yet to be able to tell what will be the influence of the new rule of the State Board of Health against spitting in public places, though I hope it will bear fruit in the no distant future.

The expenses for the State Board of Health outside of the salaries paid the agent and the man in charge of the hospital, have been limited to anti-toxin serum for two cases, groceries and medicine for the smallpox cases at the hospital, sums paid for transportation of the sick, and a small bill for plumbing and repairs to the hospital.

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DR. P. B. WILSON.

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Jackson  
County

I submit with pleasure, a brief report upon the health and sanitary conditions that existed in Jackson County during 1904.

Beside the ordinary malarial fevers and summer complaints endemic in this section, we have suffered severely a malignant type of malarial and enteric fevers. Possibly the long dry spell and its subsequent effect upon the surface water, played largely in this disaster.

Smallpox prevailed a short while in the northern portion of this county, but was promptly controlled by

Doctor Goddard, an efficient adjunct of the State Board, who will give a detailed description of same elsewhere, as well as a statement of expense attached thereto.

No diphtheria or scarlet fever appeared, nor have we heard of any.

Several cases of consumption were treated, and in nearly every instance, the cases were not of domestic origin. From all accounts, proper precaution was exercised. Most of these cases were negroes.

The present system of gathering vital statistics, as yet, is hardly in operation and, as a result, the reports of this county so far are far short of nominal. It is earnestly hoped that the physicians shall give the Board more attention touching vital statistics than ever, thus enabling the reports of 1905 to be more near the nominal.

The sanitary condition of our county may be considered good, excepting a few of the smaller towns, and these could be remedied by proper drainage and disposal of excrement.

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DR. A. B. HARRISON.

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My annual report for the year ending December 31st, 1904, has, necessarily, been delayed. Jefferson  
County

Jefferson County was healthy during the year, as to diseases usual to this section of the State. There were ten or twelve cases of typhoid fever, of which four died; two in town, origin of infection not traceable; one came home from Bartow with the fever, and recovered after long illness. Of the other cases in the county, the disease was contracted in Georgia by father, who waited on his son that died after his return home. He also had typhoid fever, and later, five of his family. The father and one of his children, after lingering illness, died.

Smallpox has continued to spread, in spite of all efforts to stop it. There is now presumably a hundred having it, and I think that I am safe on the side of correct statement, that there have been fifteen hundred



cases in the county during the past twelve months. The contagious was under the management or supervision of special agents most of the time, who will give a more elaborate report.

My attention has been given principally to town, except in the absence of a special agent, when called upon to investigate cases of supposed smallpox in the country, and wanted my services for protection.

On July 2d I made several visits, ten to twelve miles in the country, to different settlements. On one man's farm, I found thirty cases of smallpox. In some houses I found both measles and smallpox, did sanitary work, and vaccinated quite a number, but to little purpose as to protection in preventing the fever, for reason that it comes on before the virus could take effect.

Expense account for July, \$17.80.

In September I was requested to visit a family (white) in the country, ten miles from town, in which it was thought children had smallpox, and the boarding place of teacher of a school near by. Arriving at the place, I found two children with symptoms of smallpox—diagnosis not positive—but owing to fact a physician had told me the family these children had before visited did have smallpox in the spring, I deemed it my duty to teacher and school to give them the doubt, and requested suspension of the school until further developments. It proved to be chickenpox, and the school was resumed the following Monday.

Expenses, \$7.45.

In September I found a negro man had been in town for over a week with smallpox. He was moved to a house in the country, where five others had it. I vaccinated quite a number, and all I could find who had been exposed, burned the bedding this man had used, and all useless articles, and thoroughly fumigated the building, then canvassed the town looking for other cases.

Expenses, \$28.45.

In December we had our first case of smallpox in a white family. Called to see little daughter of W. E.

Haile on December 29th. The cook had visited in the country, contracted the disease, and when fever came on she absented herself two or more weeks and resumed her place as cook, and from her this child took the fever.

Cost of services December, \$13.35.

If it be possible at all to stop the spread of smallpox in this county, it necessarily, would be at considerable cost.

The best plan to pursue, perhaps, is to vaccinate freely among those who have not been exposed, and this I am doing as fast as possible, or as the people will give consent, and I am glad to state more of them are willing to be vaccinated than formerly, many coming to my office for it. I am hoping to keep, and believe will be able to prevent this loathsome disease from becoming epidemic in our town.

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DR. W. D. BUSH.

The health of Lake County during the year 1904, Lake County which has just passed, I am glad to report has been good.

Taking the conditions by seasons, in the spring months some few colds, bronchitis, none of which were severe. Summer months very healthy, scarcely any cases of malarial fever, some few cases of typhoid; I believe three or four cases was all in the county.

Of the contagious and infectious diseases, only a few cases of smallpox, which did not spread or cause any alarm among the citizens. We have had recently a few deaths due to consumption, which came here a few months previous very nearly dead when they arrived, too late of course, for a climate to do any good.

The winter is mild, and so far, not a single case of pneumonia to report; one or two cases during our winter season is generally the only cases we have, and then due to exposure.

The sanitary conditions are good.

## DR. R. T. WALKER.

## Levy County

As agent for the State Board of Health in Levy County, I have to report that during the year 1904, I was not called on officially to treat or manage any cases of contagious or infectious disease. Our county being comparatively free from such troubles during the year. In the month of May, there was an epidemic of variocella in the town of Cedar Key. Some of the symptoms so closely resembled those of variola, that I felt justified in notifying the State Health Officer, and asking for an investigation. Doctor Stinson, and afterwards Doctor Byrd, were sent down and after a thorough investigation pronounced it variocella. Several adults were real sick with the trouble, and in the beginning it was hard to give a clear and positive diagnosis.

As local registrar, I have selected a sub-registrar for each precinct in the county, and have given them instructions according to the regulations in regard to filling out the blanks and reporting the first of each month. It will likely take some time for the new regulations to be fully understood and carried out.

The health of our county for the year was good; there were some malarial troubles, and a few typhoid cases out in the country, but on the whole the health was good. We had no dengue fever, which prevailed to extensively in some parts of the State. During the summer we had in the town of Cedar Key a peculiar and unusually severe epidemic of summer colds. It attacked both the old and the young. Many persons were confined to their beds for days, and suffered severely from an aggravating and harassing cough.

A short time ago I had occasion to call the attention of the managers of one of the oyster canning factories here, to what was becoming an offensive nuisance, on account of an accumulation of stale oyster

liquor under the steambox. I suggested a remedy and they promised to correct it. I hope there will be no more trouble about it.

The sanitary condition of the county is as good as is usually found in this section.

## REPORT OF DR. J. N. FOGARTY.

In making my report on the health of Monroe County, for the year 1904, I beg to state that it was a busy one for the doctors, though not resulting in many fatalities.

*Typhoid Fever.*—Early in February we were visited by an extended prevalence of typhoid that made many victims though but few succumbed. This may have resulted more seriously had not the people of our community heeded the advice of all members of the profession by previously boiling all water before using it for drinking purposes. The occurrence of a case here and there lasted up to September, when no more was heard of it.

*Dengue Fever.*—During the month of June we were visited by the mosquito. For five months the broken bone made its rounds and crossed the threshold of almost every dwelling in our town, though not resulting fatally in a single case. As a fellow practitioner expressed it to me, it made one feel as though death was near at hand. In some households then a few were stricken down at the same time, among adults the rash appeared in 90 per cent of the cases, and in children 100 per cent. In some cases the urine became scanty but no albumen was found. All complained of extreme prostration after the fever stage.

*Pigs.*—The statute applying to the keeping or herding of pigs was enforced during the year. At first we were met by strong opposition both by the laity and the profession, but after pigs and odor had disappeared from their midst, they all agreed that it was a good thing. I think I can now safely say that there are no pigs herded in Key West.



## DR. J. L. HORSEY.

Nassau  
County

The general health and sanitary condition of Nassau County, has been exceptionally good during the past year, in fact so good that my annual report must necessarily be very brief.

The only communicable, but preventable disease that have occurred were diphtheria and smallpox. Of the first, diphtheria, there were but three (3) cases, two (2) white, and one colored. Antitoxin was used in all of these cases, but too late and in too small doses, so that two of the cases died; one white and one colored.

Smallpox first made its appearance at Fernandina during the early part of February, the first case having been brought in from Brunswick, Ga. The disease spread very rapidly from the first focus of infection and in a very short time assumed an epidemic proportion, this in spite of prompt and very energetic measures which were adopted. The disease continued to spread until a total of fifty-six (56) cases developed, all of which were taken care of by the State Board of Health.

Malarial fever was not very prevalent during 1904, and the fact was quite noticeable notwithstanding the fact that mosquitoes were very much in evidence during the entire summer.

I would respectfully call your attention to the urgent necessity for a better and larger hospital at Fernandina, for the care of contagious diseases, during the past year the present house was found to be entirely too small for the purpose, and a recurrence of smallpox might cause trouble.

## DR. L. F. HENLEY.

Polk County

I am pleased to say that Polk County has not had any serious sickness during 1904. A few cases of typhoid fever, measles and four or five cases of smallpox have been the extent of the sickness, with the exception of acute colds which have been general over the county.

The health is good and the outlook is promising.

## DR. J. M. ABBOTT.

Pasco  
County

The undersigned would respectfully submit to you his report for the year of 1904, of the county of Pasco. I am pleased to say that while Pasco County has generally noted for its health, the year 1904 has been an exceptional one, not an epidemic of any kind has visited us. As my practice includes a good portion of Hernando County, in the eastern and southeastern portions I will include that also in this report, as it is entitled to the same report. If it were not for those who come to our balmy and ozonized climate for the white plague, and coming too late to reap the benefits there from our death rate would be much lower. In addition the deaths by violence, accidents, and the use of instruments in cases of obstetrics and carelessness after delivery, our death report would be so small that I fear it would excite the envy of some of our sister States, who boasts of their health record to such an extent that your able and efficient secretary might lose some of his reputation of affability in trying to answer the enquires received. If ever a people should sing praises to a merciful ruler these of the above named section should. I am pleased to report the fact that our people are beginning to learn the necessity of hygiene and the benefits derived therefrom. While I am a great advocate of good schools I think that there should be a good sum of money appropriated for the printing of pamphlets showing how to keep in good health, and how poor locations have been made healthy and distributed, most especially through our turpentine stills and phosphate mines to our colored population, showing the necessity of vaccination and sanitation. I am sorry to say that while I have had the pleasure of improving the hygiene of our mills, turpentine stills, mines etc., yet it seems utterly impossible to teach the colored population to observe instructions. I reported to you considerable trouble and fever at a certain camp, but the chemist reported the water pure. I then had the camp watched and found that rum and wine, made from

plums and strawberries together, with the fact that fifty or sixty persons would occupy a room 12 x 14, with the doors and windows closed. I appealed to the manager, and as soon as the rum and wines were abolished and the necessary ventilation made, the health at once became excellent throughout the camp. I had a peculiar case to attend to on the 21st of December, an Italian's baby was brought to my office from the phosphate mine at Bay City for treatment for chills and fever; upon examination it was startling to find the tonsils, fauces and back part of the mouth, tongue and palate all contained apparently a diphtheretic coating. I had treated a good many cases of diphtheria before moving here, and this seemed to be a typical coating, yet the baby had no other signs, and it had been having chills and fever every other day for more than two weeks, its parents said that it had considerable gastric irritation. I sprayed its mouth with dioxide of hydrogen and found that it removed a good deal of the coating, and with a treatment of same it was up in five days. I regret very much that owing to obstetrical calls, and a cold that settled on the wounded lung that I was unlucky enough to get at Jonesboro, Ga., during the Civil war, I have been delayed with this report. You will excuse this, as I have no time to recopy it, or to overlook the errors. Trusting that 1905 will be as prosperous and healthy.

#### DR. WORTH LOCKEY.

Sumter  
County

The general health of Sumter County during the year 1904 has been remarkably good.

The general prevalence of malaria fever seems to be lessening each year.

No infectious or contagious disease has been reported.

A few cases of pulmonary tuberculosis came from other states and were under my supervision. The climate seemed to benefit them more than medicine. I must say that we have a grand climate for those suffering from pulmonary troubles, be it tuberculosis or bronchial.

#### DR. H. K. DuBOIS.

As county agent for the State Board of Health, I <sup>Volusia  
County</sup> respectfully report no cases of contagious or infectious diseases have been reported to me during the year past.

As far as I can learn, the general health is better than last year.

I again call attention to the pollution of the Halifax River by sewerage. Complainants for violation of sanitary laws have been reported to the office of the State Board of Health at Jacksonville.

As I stated in a previous report, I believe this county to be, "as for the resident population," safe from smallpox, vaccination being almost universal, Lake Helen and Seabreeze being the only danger points.

NOTE—Since writing this report, a short note with enclosed article on "Control of Smallpox," by Dr. H. M. Bracken, the talented secretary of the Minnesota State Board of Health, has been received, which so fully confirms what has just been said to the State Board of Health of Florida by the writer, that the liberty is taken to re-produce Dr. Bracken's article. The opinions of strangers are sometimes heeded and followed, when the views of homefolks are ignored. His presentation of facts is not only interesting but should be convincing to the lay reader. His seventh conclusion is fully concurred in and has been the sentiment of this executive office for some time past, that "If the people choose to follow the leadership of faddist against vaccination, rather than the scientific teaching and actual demonstration in favor of vaccination, then upon the people should rest the responsibility for the consequences resulting from failure to protect against smallpox by means of thorough vaccination." Dr. Bracken is quite right when he maintains



that quarantine does not protect against smallpox or completely limit its spread. Successful vaccination in infancy, and re-vaccination in adult life will thoroughly protect the child and the adult against this loathsome disease, and will do so at trivial or no discomfort and absolutely no expense.

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DR. BRACKEN'S LETTER.

January 18, 1905.

"State Board of Health,  
St. Paul, Minn.

My Dear Doctor:

"Enclosed find a reprint of a paper which I recently read before the Ramsey County Medical Society. In it I have presented some rather unusual views, I think, relative to the control of smallpox. I think we are giving entirely too much attention to the quarantine of this disease which we know can be controlled by vaccination. I feel that we should throw the responsibility for compulsory vaccination upon the people themselves. Please give me your views on this matter.

Yours truly, (Signed) H. M. BRACKEN."

(Reprinted from the *St. Paul Medical Journal*, Jan., 1905)

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THE CONTROL OF SMALLPOX.\*

BY H. M. BRACKEN, M. D.,

*Secretary Minnesota State Board of Health.*

*Minneapolis, Minn.*

If any one of you were asked what means should be taken to control smallpox I presume he would reply "general vaccination and a rigid quarantine."

This country has been in the midst of an epidemic of smallpox of a mild type for the past ten years. Our own state of Minnesota has a record of cases and deaths, as shown in the following table:

YEAR.	CASES.	DEATHS.
1899 .....	257.....	11
1900 .....	1,371.....	22
1901 .....	8,485.....	43
1902 .....	8,666.....	29
1903 .....	4,502.....	55
1904 (to Oct 1st) .....	1,711.....	35
Total .....	24,992.....	195

The methods employed in the efforts to control smallpox in this State have been along the lines defined above, viz., general vaccination and attempted rigid quarantine. The number of cases that we have had shows that these efforts have not been entirely successful, although the conditions in Minnesota are as good as in other states.

Why have there been about 25,000 cases and about 200 deaths from smallpox in Minnesota during the past

six years? Because people were not protected by vaccination, and because the disease was mild. The latter statement may seem a little strange, but it is true nevertheless. If smallpox of a severe type appears in a community every one is frightened and the ancient methods for its control—quarantine and vaccination—are rigidly enforced. If, on the other hand, the disease is of a mild type, people sneer at all efforts made to control it, asserting that the doctors are mistaken in their diagnosis, that the disease does not demand such rigid quarantine as will demoralize trade interests, etc. It is quite evident from the history of this disease in the United States during the past ten years that quarantine will not control smallpox, and especially so when the disease is in mild form, and the reason for this is that many of the mild cases are entirely overlooked or concealed, thus escaping quarantine; or if quarantined, the quarantine is so imperfect as to allow of further infection.

The effort to control disease is of ancient origin. The sanitary laws instituted by Moses provided for the segregation of certain infected individuals.

The term "quarantine" was originally applied to the detention for a period of forty days of all individuals who, because of illness or exposure, might be regarded as a menace to the health of the surrounding community, it being supposed that this period of time was sufficient to allow of the "self-consumption" of the acute epidemic diseases. Quarantine was originally established against the so-called plague diseases, which at various times included smallpox, cholera, yellow fever, typhus fever and the plague proper.

Quarantine under modern usage is applied to the attempted control of many communicable diseases, such as scarlet fever, diphtheria, etc. The time of enforcement is no longer a fixed period for all cases, but varies according to the nature of the disease. Originally quarantine was rigidly enforced at the ports of entry of healthy localities against individuals, personal effects and articles of merchandise coming by land or sea from

localities in which dangerous epidemic diseases were prevailing. This was not a serious hindrance when international commerce was of but little importance, but in recent years the delaying of passengers and cargo at the port of destination by quarantine regulations has become so burdensome that the tendency in the more civilized countries, notably England, has been to abandon the enforced quarantine detention at ports of entry and to rely upon those measures that tend to place their ports under such sanitary conditions that epidemic disease cannot gain a foothold.

The acquirement of scientific knowledge as to the cause of epidemic diseases has had much to do with the modification of port quarantine regulations. For example, the knowledge that cholera is to a great extent a water-borne disease has done away with the necessity for rigid port quarantine against this disease, for if a city has a protected water supply there is but little danger from the importation of a few cholera cases. The isolation of the patients is sufficient to control the spread of the disease. So, too, of yellow fever. We now know that this disease in all probability is only transmitted from one individual to another by the female of a special variety of mosquito. It is no longer necessary, therefore, to quarantine against this disease as in former days. We have only to see to it that the female mosquito of the *stegomyia fasciata* variety is not permitted to bite a yellow fever patient, in order to prevent the spread of this disease in so-called yellow fever countries. If a yellow fever patient is landed in a port where there are no *stegomyia fasciata* mosquitoes then he can safely be treated in the wards of a general hospital without any precautionary methods against the spread of the disease. So, too, with plague, for this disease is only transmitted by direct infection, and if steps are taken to prevent such infection it makes little difference where the patient suffering from the disease is cared for.

International quarantine is thus shown to be governed by scientific knowledge, and one reason for the change



in such quarantine from the old irrational isolation to the modern methods of controlling disease upon scientific data, has been the serious embarrassment to commercial interests caused by the older methods. If commercial embarrassment has forced those in authority to accept the modern methods of quarantine between one country and another, why should it not force similar methods into use for domestic quarantine? Two of the reasons why domestic quarantine has not taken the advanced position of international quarantine methods are, first, the amount of financial loss in any given case resulting from irrational domestic quarantine regulations is not sufficient to rouse the entire state to the importance of a change in methods; second, the sanitary officials regulating domestic quarantine are too often not sufficiently versed in their duties and responsibilities, nor do they have the confidence of the community which they serve to allow of such radical changes. The port sanitary official, if not ready to follow scientific leadership, is forced so to do by the commercial interests of his country and by the influence of the general medical profession. Domestic sanitary officials are often ignored, both by commercial interests and the medical profession, and their quarantine methods, while normally rigid, fail to prevent the spread of communicable diseases. It is a well-known fact that as a rule only the typical cases of scarlet fever and diphtheria are quarantined, and that during an epidemic of either disease there is always a large number of unrecognized or concealed cases.

I have gone thus fully into the subject of quarantine to show that it accomplishes but little in the control of any disease and that it would be abandoned when science has fully demonstrated that a disease may be controlled more completely by other methods. Quarantine never prevented the spread of smallpox when the disease was epidemic or endemic. There is always a sufficient number of mild concealed or neglected early cases in the field to spread the infection and continue disease until it has exhausted the non-immunes oil. On the other hand, vaccina-

tion can suppress a smallpox epidemic without quarantine as surely as can the exclusion of the *stegomyia fasciata* mosquito from yellow fever patients prevent the spread of that disease. There can be no epidemic of yellow fever without infection through this mosquito. There can be no epidemic of smallpox in a well vaccinated community. Why, then, do we not live up to our scientific knowledge and abandon quarantine as an attempted means of controlling smallpox? Some may say that we cannot abandon quarantine as a means of controlling this disease until the community is well vaccinated, and that this condition will not exist until we have compulsory vaccination laws. I can hardly agree with this sentiment. Most legislation looking to compulsory vaccination has been fathered by the medical profession. There is a strong sentiment amongst the laity against compulsory vaccination, and this sentiment is encouraged by the so-called antivaccinationists, who contend that the medical profession is in favor of vaccination because it is a source of revenue to such profession. In 1717 Lady Montague charged the medical profession with being selfish. She did not believe that medical men would be willing to do anything toward suppressing smallpox. She had learned of the modifying influence of *inoculation* upon the severity of this disease, and she was anxious to have her countrymen benefit of her knowledge. She wrote from Adrianople to England relative to inoculation as follows:

"I should not fail to write to some of our doctors very particularly about it (inoculation) if I knew any one of them that I thought had virtue enough to destroy such a considerable branch of their revenue for the good of mankind. But that distemper (smallpox) is too beneficial to them not to expose to all their resentment the hardy weight that should undertake to put an end to it."

The medical profession has fully demonstrated that Lady Montague was unjust in her estimation of medical men, for it was a medical man who gave to the world a far better protection against smallpox, when he discovered the virtues of vaccination than the partial

amelioration of the disease resulting from the practice of inoculation. It remains for the medical profession to again demonstrate the unjustness of its critics who advance the argument that the physicians favor compulsory vaccination for pecuniary reasons. If a physician would live up to what he knows to be true, namely, the protection of vaccination against smallpox, and would insist upon this well demonstrated fact and leave the laity to follow his teachings or go its own way, one of two things would result: The laymen would demand laws compelling vaccination, or smallpox would again become a scourge upon the face of the earth as it was before the days of JENNER. If the laymen refused to follow such well-grounded knowledge as that of the protection of vaccination against smallpox, they should be the sufferers for their persistent prejudice or ignorance. While it is true that medical men are constantly endeavoring to prevent disease, there are many people who, because of ignorance or for selfish reasons, refuse to recognize in the physician one who is willing to destroy his own source of income. Like Lady Montague, they consider the medical profession as actuated by purely selfish motives. I am inclined to think that medical men should be satisfied with telling what they know to be a fact regarding the protection of vaccination, and allow the laity to follow their advice and enact compulsory vaccination laws, or ignore their advice and suffer the consequences.

Let us look into the history of vaccination and note what has been accomplished. Before the days of vaccination smallpox was a disease of childhood. Why? Because it was almost impossible for a human being to reach adult years without having had this disease, so general was the infection. Adults were the survivors of the disease and were immune through having had it. In countries where compulsory vaccination was made a part of the law, and where infancy was thus protected, smallpox ceased to be a disease of childhood. It affected then only the adults who through time had lost the immunity conferred upon them in childhood by vaccina-

tion. In our own state and country smallpox is again becoming prevalent among children because they are not protected by vaccination, and often a mild type of the disease is not recognized as such because of the fact that it has involved a large number of school children at the outset of an epidemic through infection at school. Such cases are often supposed to be chickenpox.

That vaccination will prevent smallpox is ably borne out by the history of the smallpox cases that have been under observation in hospital and private practice throughout this and other states during the past few years. To be definite in our statements, however, as to the protection afforded by vaccination, it may be well to quote certain statistics.\*

The average smallpox rate in Copenhagen for 1750-1800, inclusive, a pre-vaccination period, was 3,500 per million population per annum—a ratio of 1 to 14 of all deaths. This represented a total of 12,309 deaths from smallpox during these years. From 1811 to 1823, inclusive, (after vaccination), there was not a single death from smallpox in Copenhagen.

Sweden, before vaccination, during the period covered by the years 1774-1800, inclusive, had 119,073 deaths from smallpox, an average of 2,049 deaths per million inhabitants—a ratio of 1 to 13 of all deaths.

In London the smallpox death rate during the eighteenth century represented about one-twelfth of all deaths. During the decade 1821-1830, inclusive, vaccination was in vogue, but was not made compulsory in London. About one-thirtieth of all the deaths was due to smallpox during this period.

The death rate from smallpox in Berlin for the years 1758-1774, inclusive, was 6,705, or about one-twelfth of the total deaths (81,133). The mortality among children was exceedingly high. JERVIN estimated from the London

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\*The statistics quoted are from E. J. Edwardes' work on "Smallpox and Vaccination in Europe."



death register that every fourteenth child born died of smallpox, and that every fifth or sixth case was fatal.

The disease was endemic in large cities and epidemics visited the smaller towns and villages before the days of vaccination, so that few "liable" persons escaped the infection.

In Oldenburg (1795) out of 600 children not immune to smallpox, 550 were attacked and 144 died.

In Berlin (1858-74) out of 6,705 deaths from smallpox, 5,876 were of children under five years of age, and 742 were of children aged from five to ten years; thus nearly 99 per cent of these deaths were of children under ten years of age.

JUNCKER estimated that 400,000 smallpox deaths occurred yearly in Europe in the pre-vaccination era. DE LA CONDOMINE said that every tenth death was due to smallpox and that one-fourth of mankind was either killed by it, or crippled or disfigured for life. The disease was "a river that every one had to cross."

In Lady Montague's time people appreciated what smallpox was, for, as already stated, she was anxious to introduce inoculation in England in 1717. Yet inoculation only modified the disease slightly and the death rate among the inoculated ranged from one-sixth of one per cent to two per cent.

If the anti-vaccinationists were able to carry their point there is no question but what the terrors of the pre-vaccination period would in time return. If the anti-vaccinationists are to fail in their endeavors, it should be because of the intelligent action of the laity, rather than through the constant importuning of medical men.

It is for the people to look out for their own interests and see to it that smallpox is again entirely suppressed as it has been in the past, by persistent vaccination.

Single vaccinations are not enough. These suppress smallpox as a disease of childhood, but early in the history of vaccination it was found that epidemic of smallpox began to recur amongst the vaccinated of adult years. This meant that the protection from vaccination

had been exhausted in part at least. This type of smallpox among the vaccinated was milder than that of pre-vaccination time, showing that the protection had not been entirely exhausted. This experience demonstrated the necessity for revaccination.

Smallpox in the armies was scarcely known in the pre-vaccination period, for the soldiers were survivors of the disease in infancy. But with vaccination in infancy and the conversion of this disease from one of infancy to one of adult life, the latter due to exhausted immunity, smallpox began to appear in the armies and the revaccination of recruits was made compulsory as follows:

In the Wurremberg Army in 1833			
" "	Prussian	" "	1834
" "	Hanoverian	" "	1837
" "	Baden	" "	1840
" "	Bavarian	" "	1843
" "	English	" "	1858

About 1819 smallpox began to appear in the Prussian army and increased gradually each year. The record of smallpox deaths in this army by years is as follows: In 1825, 12; 1826, 16; 1827, 23; 1828, 35; 1829, 33; 1830, 27; 1831, 108; 1832, 96; 1833, 108; 1834, 38.

In 1834 compulsory revaccination was enforced for all recruits, with the following results: Deaths from smallpox in 1835, 5; 1836, 9; 1837, 3; 1838, 7; 1839, 2.

From 1840 to 1869, inclusive, a period of 30 years, there were but 51 deaths from smallpox.

Previous to 1834 the average smallpox rate was higher in the army than in the civil population. After this year it was steadily much lower. Doctor Edwardes, quoting from Doctor Werner, says: "This change is entirely due to revaccination of all recruits, most strictly enforced since 1834. It is instructive to read about the measures adopted before 1834 to do away with smallpox, especially for those persons who appeal to improved sanitation and in particular to isolation. *Isolation was most rigidly*

*enforced; the patient was removed to smallpox stations and special houses; even seals were placed on the door of the patient's room...The patient's clothes were disinfected or burned, and themselves and their attendants kept under watch and ward...All to no purpose; the pest found a way through the closed doors till suppressed by revaccination alone, without the cooperation of any other sanitary measures.*

In the Bavarian army after revaccination was introduced there were only *six deaths from smallpox during 28 years (1843-70)*.

Edwardes, in a comparison of mortalities of French and German armies, speaks as follows: "The whole German field army of over a million soldiers, though much exposed to infection, lost 297 by smallpox, while it is estimated that the French army lost 23,400." The Prussian army was well vaccinated; the French army was not.

Germany, appreciating the importance of vaccination and revaccination, passed a law in 1874 by which vaccination was made compulsory for

- (1) *every child within the second year of life,*
- (2) *every school child within the twelfth year of life, (unless an attack of smallpox, or of successful vaccination, has occurred within the five years previous),*
- (3) *all recruits in the army.*

Germany has had over a quarter of a century of experience with revaccination of all school children, and the result is that smallpox epidemics have long been unknown in that country. In the year 1899 there occurred but 28 deaths from smallpox in the German empire, and these were in 21 different districts, with three as the highest number in any one district. Most of these cases occurred on the frontiers of badly vaccinated countries.

After 1874 there was not a single death from smallpox in the German army until 1884, when a recruit,

twice unsuccessfully vaccinated, contracted the disease and died. There was one death in 1898. This gives a record of but two deaths in the German army from smallpox in twenty-four years.

If the quarantine of smallpox was established upon a scientific basis it would be somewhat as follows:

Where compulsory vaccination laws were in force a smallpox patient would be removed to an isolation hospital or tent, and the house from which he had been removed would not be placed under quarantine. If it was not possible to remove the patient from his home, then the place should bear a placard stating the existence of smallpox in the house and prohibiting all except members of the household, nurses, medical advisers and spiritual advisers, from entering the same. There would be no restrictions upon the members of the household relative to their going to and from the place, *provided* there was evidence of their bearing a sufficiently recent vaccination mark for protective purposes, or evidences of having had smallpox within a comparatively recent period. In the event of a case of smallpox being recognized early and the unprotected having been vaccinated at once, such individuals need not be restricted in their movements to and from the place, but they should be kept under observation in order that the success of the vaccination or the possibility of the appearance of smallpox might be noticed. If the disease should exist in a given case for some days before being recognized, then the non-protected members of the household, as well as the patient, should be rigidly quarantined. The non-protected should be vaccinated at once, but they should be continued in quarantine for a period of three weeks from the time of their vaccination, *provided* the vaccination was successful; otherwise, until all danger of having the disease had passed, namely, three weeks after the recovery of the last patient and the disinfection of the house and its contents.

If smallpox is properly handled in a community where compulsory vaccination laws are in force, there



need be no restrictions upon the sale of produce, such as milk, eggs, butter, etc., from the house.

From the foregoing we may draw the following conclusions:

*First.*—It has been fully demonstrated that the proper enforcement of vaccination will prevent the occurrence of smallpox.

*Second.*—It has been thoroughly demonstrated that it is impossible to control smallpox by any known method of quarantine.

*Third.*—Recognizing these statements as true, our efforts to control smallpox should be based upon vaccination rather than upon quarantine.

*Fourth.*—Without vaccination there is no reason why smallpox in time should not again become as great a scourge throughout the world as it was in the pre-vaccination era.

*Fifth.*—Compulsory vaccination laws are important. These should be demanded by the laity.

*Sixth.*—Physicians should use their influence in favor of vaccination, for they know this to be the only satisfactory means of preventing smallpox, but they should not place themselves in a false light by trying to force legislation demanding compulsory vaccination laws.

*Seventh.*—The people should demand compulsory vaccination laws as a means of self-protection. If the people choose to follow the leadership of faddists against vaccination rather than the scientific teaching and actual demonstrations in favor of vaccination, then upon the people should rest the responsibility for the consequences resulting from failure to protect against smallpox by means of thorough vaccination.

*Eighth.*—Compulsory vaccination laws should be as rigid as those of Germany, which require vaccination in infancy and revaccination at puberty.

*Ninth.*—Quarantine is either evidence of a lack of scientific knowledge as to the proper means to be employed in the control of a communicable disease, or inability to apply such knowledge.

*Tenth.*—The practical application of known scientific facts will control the spread of other communicable diseases than smallpox. Why, then, should we not make use of scientific knowledge in the control of smallpox rather than to continue the known impracticable methods of quarantine now in vogue?

*Eleventh.*—The attempt to control smallpox by means of quarantine should be abandoned, for it is unscientific, impracticable, expensive and an absolute failure.

*Twelfth.*—The present methods of quarantine for smallpox should not be suddenly discontinued, but after a sufficient time has elapsed to permit of the creation of compulsory vaccination laws sanitary authorities should take concerted action looking to more scientific methods for the control of this disease.

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The following taken from the California State Medical Journal of last month (January), although pungent in expression and satirical in criticism, is so truthfully to the point, that it is quoted in full. If anti-vaccinationists in Florida, like California, are permitted to have their full sway, the State will be full of smallpox very soon in epidemic form and the State Treasury depleted looking after the cases, for the indigent sick of this disease must be looked after, it matters not whether it be by the State Board of Health or by the individual counties. The public will demand this protection, and no doubt but that the "antis" will be the most clamorous for prompt aid in this direction:

"There seems reason to believe that some of the weaker minded and highly hysterical citizens of California will endeavor to have a bill introduced into the Legislature repealing the compulsory vaccination act. This class of pestiferous idiot is so microcephalic that it is practically impossible to get sense into his head; he must therefore be regarded as beyond the sphere of useful

reason and our efforts to prevent his bringing disaster upon California must be thwarted by direct appeal to the legislators themselves. Practically every county society in the State has passed resolutions objecting to the repeal of this wise law. It would be an excellent thing for the individual members to write to the legislators and express their views on this subject, remembering that it is impossible to bring too much influence to bear. It is safe to say that the repeal of the law would, in the course of time, cost the State of California millions of dollars, to say nothing of the death of many innocent persons. If the pest could be so controlled as to exercise only a selective affinity for those who oppose vaccination, it might be well to encourage it and thus be of practical aid to the fool-killer. As we cannot help in that way, the best we can do is to keep both eyes wide open, and at least one of them fixed on the Legislature."

Isolation  
hospital for  
contagious  
diseases

It is appropriate in this connection to mention that the Board following its policy of the past, has during the year enacted another of the Isolation Hospitals, of which a chain is proposed for the State, and has located the building at Pensacola. A building of similar design is under construction at Miami.

At Pensacola

The building at Pensacola cost \$2,140.00, which with an equipment of \$305.50, makes the total cost \$2,445.50. The hospital at Miami will cost, when completed and furnished, about \$2,700.00. It has already been explained in previous reports that it was found to be a more satisfactory and decidedly a more economical method of management to segregate patients of dangerously contagious diseases, especially of smallpox, at different points, and there take care of them to recovery. The plan has the additional advantage of reducing the foci of infection from which a spread of the disease can be effected.

Other  
hospitals  
recommended

The construction of two more of these hospitals will be recommended, which the State will own and through the

State Board of Health will conduct for the management of the more dangerously contagious disorders which afflict the human family, and then the State will own six of these institutions, always ready for service, comfortably furnished and administered. It is not known that any other State in the union provides so generously in appointments of this character for the disposition and care of the contagious sick happening within State lines, as does Florida.

Municipal hospitals for contagious diseases exist in many of the larger cities of the union, but the ownership and maintenance of institutions of this character by the State must be accredited alone to Florida.

Dengue prevailed at Key West, Monroe County, at Tampa, Hillsborough County, and at Miami, Dade County, with a few cases at Jacksonville, Duval County, during the summer and fall months of the year. The disease first manifested itself in Key West in June, and continued in an epidemic form from then until late in the autumn. The exact number of cases is not known, nor would the number treated by the local physicians be accurate of the total seizures, because many persons sick with the disease had no medical attendant. Dr. Fogarty, the County Sanitary Agent of Monroe, living at Key West, estimates that there was not an household, not previously immunized, in the city which had not one or more cases, and at Tampa later on the disease was extensively prevalent, but lasted only a comparatively short period. The last general epidemic of dengue at Key West, occurred in 1898, the year of the Spanish-American War, when the disease being mistaken for yellow fever by some naval and army physicians, a stampede of the fleet was made from Key West and great commercial damage to the place caused thereby.

Considering the transmission of dengue to be due to similar means as yellow fever, viz: by the mosquito of the genus *Culex fatigans*, a very probable opinion advanced by other investigators, an effort was made to discover this peculiar genus at Key West during the prevalence of

Dengue

Mode of  
transmission  
problematical



dengue last summer, and although sick were closely watched by attending physicians and even the net enclosing the bed searched daily and nightly, only the *Stegomyia Fasciati* was found. May not the *stegomyia fasciata* serve as the transmitting medium for dengue as well as for yellow fever? This question is one for future investigators of dengue to study and determine.

Measles, etc.

Measles, scarlet fever, whooping cough and mumps existed in a limited number of cases during the year. They occasioned no uneasiness, being mild in character, with no fatalities.

Consumption  
(pulmonary  
tuberculosis)

Consumption, pulmonary tuberculosis, seems to have claimed 742 victims during the past year. Suggestions of preventive measures against this disease have been so often made in reports of this nature that it is thought not to be necessary at this time to say more on the subject, except that the measures which the Board adopted at the last annual meeting to lessen the spread of this plague were placed in operation almost immediately after adjournment, and that the cards and notices against spitting in public places and in public thoroughfares and in transportation conveyances doing business in Florida, have been very generally distributed and posted, and it is pleasing to state have also been observed. Many applications for "anti-spitting cards" have been received, and kindly commendation made of the Board's efforts to lessen the spread of consumption through cleanly methods. The rule is generally adopted in the cigar factories in Key West, that spitting on the floor or in any place except in a cuspidor, warrants a discharge of the operator. Each table in the cigar manufacturing room is supplied with a cuspidor which the cigar maker is compelled to use. The Ruy Lopez Factory at Key West was the first to adopt this cleanly method, in compliance with the State Board's request, and the practice is now very universally adopted by all other manufacturers. The innovation upon former uncleanly methods of promiscuous expectoration on the floors was resisted at first, but a little firmness combined with kindly persuasion and explana-

Anti-spitting  
crusade

Factories in  
Key West set  
the lead  
in cleanly  
methods

tion overcame all objections, and it is now thought that the operatives themselves would be decidedly unwilling to return to former uncleanly habits. The information comes to the writer that the cuspidors are daily attended to, cleaned and constantly contain a germicide solution.

Two years ago it was suggested in an annual report that the Legislature meeting that year should authorize the State Board of Health to construct a camp of experimental size, for the treatment of tuberculous (pulmonary) persons, either for those residing in the State or who may come to Florida hoping to be benefitted by climate and a permissible out door life. A "shack" settlement such as was described and recommended in the report of the State Health Officer in 1903, located in the piney woods of the State sufficiently removed from populous centers, so that a "going to town" would be difficult or impossible, it was thought would fulfill ample conditions of hygienic living, with enough of out door occupation to prevent a somewhat forced isolation from becoming tiresome. An "out-of-doors" sanatorium of this kind would provide a place for the consumptive stranger to live comfortably and pleasantly, and at reasonable cost. The consumptive class are no longer welcome guests at any of the large tourist resorts; many hotels and boarding houses refusing to admit them, therefore, the State could not conceive of a greater charity or one of more humane benevolence, than to make an experiment on a small scale, which if successful would prompt commercial enterprises to follow in larger proportions, that life in pleasant environment might be prolonged, a permanent cure perhaps effected through the wonderful restorative influence of the balmy and equable climate of this State. The suggestion for an "experiment station" or settlement just briefly described, is again submitted for the consideration of the representatives of the people in their law-making capacity.

The Bacteriological Section of the State Board of Health, under the able directorship of Dr. Edward Andrade, the Bacteriologist of the Board, has done most ex-

Open air  
sanatoria for  
consumptives

Laboratory  
work of 1904

cellent work during the year. As stated in the report which follows, there has been a remarkable increase of specimens sent to the Laboratory for determination of their character, over the number examined in 1903, which fact is a very gratifying evidence of increasing confidence on the part of the physicians of the State in the scientific ability of the Laboratory to ascertain and decide upon doubtful cases of disputed diagnosis. Authority having been granted at the last meeting of the Board to employ additional assistance in the Laboratory, because of the increase of work and the possible embarrassment which might occur should the Bacteriologist from any cause be disabled or prevented from attending to his duties, after careful inquiry, the services of Dr. H. S. Holloway, a graduate of Maryland University, were secured, early in the spring of last year, and the Board is to be congratulated upon having been so fortunate in its choice. Dr. Holloway did most excellent work all through the summer, but unfortunately, contracting typhoid fever in the latter part of November, he has been incapacitated from then to this present time. He has experienced a very severe attack of the disease, but it is gratifying to state that he is now improving and it is hoped that there may be no further relapses nor other hindrances to a rapid recovery.

#### REPORT OF BACTERIOLOGIST.

Jacksonville, Fla., January 12, 1905.

I have the honor to report on the work done in the Laboratory during the year 1904.

The number of specimens examined has been 2,088, an increase over the number of the year before of 1,087. The increase has been in all the different kinds of examinations that the Laboratory usually makes. 564 specimens of suspected tuberculosis have been examined, an increase of 284 over last year. Of specimens of suspected

diphtheria, 319 have been examined, or 103 more than last year. The examinations for typhoid fever number this year 645, while last year the number was 244. 216 examinations for malaria have been made this year, whereas last year 115 only were made.

The examinations for water show an increase of 52 over the year before. Gonorrheal specimens have numbered this year 127, as against 53 last year. Specimens of urine examined have been 115; last year they were 34 only. Other specimens, including pathological tissues, milk, feces, etc., etc., have numbered 46, when last year they numbered 44.

From this statement it will be seen that the Laboratory has progressively gained in the confidence of the medical profession and that the services rendered them in the diagnosis of disease has been duly appreciated.

A larger number of specimens was examined during the month of December than in any other month. Of the cities from which specimens have been sent, Jacksonville furnished a larger number than Tampa.

The same outfits, blanks and methods of recording examinations, as mentioned in last report, have been used this year, no reason having arisen to make a change desirable. However, when the present supply of cards for reporting the results of the examinations are exhausted, I would suggest that on the new card, besides the usual report, an explanation of the findings of the Bacteriological examination should be printed. This will add much value to the reports of the Laboratory. Thus: on the card reporting the result of examination for typhoid fever, it will be convenient to explain first: That the widal reaction may be absent in some cases of typhoid fever, about 2 to 5 per cent. Second, that the widal reaction does not appear, as a general rule, until after the sixth day, and often, not until later on in the disease. Third, that the reaction may appear and disappear at intervals. Fourth, that the reaction, though often disappearing after a few months, may remain in the blood for many years. Fifth, that the presence of the widal reaction means that the



patient has, or has had, an infection with the bacillus typhosus. This infection may not have assumed the form of typhoid fever, it may have been an osteomyelitis, meningitis, etc., etc.

In the case of diphtheria, it should be stated that the presence of diphtheria bacilli means that the patient has, or has had diphtheria recently, or, that though he may himself not show any symptoms of the disease, he should be considered infectious and capable of transmitting the disease. In a few cases, normal individuals may harbor in their throats no virulent diphtheria germs, but, this is exceptional, and it is safe to consider infectious, every person who carries in his nose or throat diphtheria germs.

The absence of diphtheria bacilli in the swab and culture means that the patient has not diphtheria, or that though the patient may be affected with diphtheria, an antiseptic has been used shortly before collecting the sample, or especially, in cases of laryngeal or nasal diphtheria, that the swab was not properly rubbed over the effected parts. In these cases, other specimens should be sent to the Laboratory. "If the proper precautions are observed and the sample collected according to the directions contained in our blanks, the absence of diphtheria bacilli from the swab and culture, means that the case is not diphtheria."

In explaining findings in suspected cases of tuberculosis, it should be borne in mind that, though it is possible that a few normal persons may carry, occasionally in their throats or nose a few tubercle bacilli, the presence of the characteristic bacilli in the sputus of persons suffering from bronchial, pulmonary or laryngeal affections shows positively that the patient has tuberculosis. On the contrary, the absence of tubercle bacilli does not show the absence of tuberculosis. In the early stages of the disease, the bacilli are only occasionally found in the sputum and even in later stages, sometimes, the bacilli are absent from the expectoration. For this reason, before excluding the presence of tuberculosis, several specimens should be sent for examination.

In specimens of blood of suspected malaria patients, a positive report means without exception that the patient is suffering from malaria. A negative report means that the patient has not malaria, or, that though he may have malaria, quinine has been administered before collecting the blood. In any case, several well prepared specimens of blood should be sent for examination before excluding positively the absence of malaria.

In connection with diphtheria, I beg to call your attention to the neglect of some physicians to send to the Laboratory secondary or *release* specimens, in cases where a primary examination has demonstrated the presence of diphtheria germs in the throat or nose of the patient. Great as is the value for the patient and physician, of the microscopical examination in the diagnosis of suspected cases of diphtheria, it is the ability to determine when a person who has suffered from the disease ceases to be infectious, that makes the bacteriological examinations of the utmost importance for the protection of the public health. For this reason, it is to be hoped that hereafter all physicians will send to the Laboratory secondary specimens, and not release the patient until the absence of diphtheria germs from the throat and nose is determined by bacteriological examination.

The same difficulty mentioned in our last report, in regard to the improper way in which some practitioners prepare specimens intended for malarial examinations, has been noticed this year. In spite of the directions contained on our blanks, some physicians seem not to be able to understand the proper spreading of blood films to make a satisfactory microscopical examination, in cases of suspected malaria. To help them as much as possible, the Laboratory has sent sample films to physicians who have sent specimens in improperly prepared. I would also suggest to have printed a diagram of the necessary steps in the preparation of the blood films, and have it enclosed in the corresponding outfit.

To the bacteriological examination of water, a good deal of care has been given. In several instances, follow-

ing instructions of the State Health Officer, the Bacteriologist or his assistant has personally collected the samples and investigated local conditions. To form an accurate opinion of any water, several samples should be examined, and the results compared. Besides the local conditions have to be taken into consideration, and samples that should be condemned in a certain locality or season, would probably not be adjudged so dangerous in another year.

The number of depots for bacteriological outfits throughout the State has been increased, and new stations have been established as soon as physicians in the corresponding places requested the Laboratory to do so. Besides, a great number of outfits have been distributed to private physicians and private or public hospitals, if, for any reason, they find a difficulty in making use of a local depot.

During the past year the use of dead cultures of typhoid bacilli has been advocated in the performance of widal test. After an extended examination of more than 300 specimens, when both living and dead cultures were used, I have arrived at the following conclusions:

First—Living and dead cultures are about equally sensitive to the actions of the agglutins contained in the blood of typhoid fever patients; although with dead cultures, the reaction may require a longer time to take effect. The specimen should be kept under observation for two hours. In some cases the reaction takes place much quicker with dead cultures than with living cultures.

Second—The dry blood method is equally efficient with dead as with living cultures.

Third—The reaction when it takes place is more characteristic with dead cultures than with the living ones. There are no pseudo-reactions with dead cultures.

Fourth—Dead cultures keep their sensibility to the agglutin for a long time, six months at least, and probably much longer.

As difficulties of growing gonococci are known to all bacteriologists, several media have been from time to

time advocated, for the successful growing of this germ. Dr. B. Lipschutz, of the Sero-therapeutic Institute in Vienna has given lately the composition of a medium in which he claims Gonococci cultures will always be successful. The medium is prepared by making a two-percent solution of Merck's soluble egg albumen powder, adding 20 CC of 1-10 normal soda solution to each 100 CC of the albumen solution. After one half hour the solution is filtered in Erlenmeyer bottles, 30 or 50 CC in each, and sterilized over an asbestos plate, two or three times in succession, either the same day or in two days. This solution is added in the proportion of 1 to 2 or 1 to 3 to agar-agar or bouillon and the suspected discharge is planted in either of the media. I have given a good trial to this medium and have been able to grow gonococci therein, even in cases of chronic posterior urethritis, when no gonococci could be detected in the stained smears made from the discharge. For more details on the preparation of this medium, see Lipschutz's paper in No. 5 of *Centralblatt für Bakteriologie, Parasitenkunde, etc.*, 1904.

During the past months public attention has been called to the claims made by Moore of the Agricultural Department of the United States, in regard to a sterilizing action that solutions of copper salts, even to the strength of 1-100,000, or metallic copper by itself, exert on water that has been contaminated with bacilli typhosus or other intestinal germs. A series of tests which, however, have not yet been finished, carried on in the laboratory, have confirmed the claims made in regard to the copper solutions. These investigations and others carried on with the object of testing the antiseptic values of several substances generally used as germicides, will be completed next year.

I have been able during the past year to demonstrate the presence of the *Filaria Sanguinis hominis* in the urine and blood of a man suffering from chyluria. This is, I believe, the first case ever reported in Florida. (Dr. Guiteras, of Havana, Cuba, writes to me that he saw, in Key West, some cases of *Filaria*, but does not remember



to have reported them.) This case will be reported in detail later on. This parasite is one of those transmitted by mosquitos (*Culex*) and, therefore, its discovery in Florida is especially important.

A few books and journals on bacteriological and pathological subjects have been acquired during the preceding year, thus giving to the workers in the Laboratory an opportunity to keep abreast with the advances daily made in their specialty. It is to be hoped that during the coming year, more books will be added to our scant library.

The Bacteriologist has tried to keep the expenses of the Laboratory at a minimum, bearing in mind the motto, "Economy with Efficiency." The Laboratory has done its best to give the best results with the least expense. Without fear of contradiction, it can be asserted that no other Sate Laboratory does the work that we do at such small expense.

Before concluding, I commend with pleasure to your consideration the skill, ability and intelligence with which Dr. H. S. Holloway, Assistant to the Bacteriologist, has fulfilled his duties. His assiduity and interest in all matters pertaining to the Laboratory have rendered his services especially valuable.

I append a tabulated and detailed statement of the work done at the Laboratory, and two papers on bacteriological subjects published by the Bacteriologist during the year 1904.

Table No. 1, showing the number of specimens examined in the Laboratory during each month:

January	122
February	122
March	108
April	147
May	171
June	165
July	155
August	199
September	227
October	187
November	214
December	266
Total	2,083

Table No. 2, showing the number of specimens of suspected tuberculosis, whether positive or negative, which have been examined during each month:

	POSITIVE	NEGATIVE	TOTAL
January	14	29	43
February	14	32	46
March	16	27	43
April	18	29	47
May	15	23	38
June	18	13	31
July	26	25	51
August	24	22	46
September	12	28	40
October	26	22	48
November	24	44	68
December	24	39	63
Total	231	333	564

Table No. 3, showing the number of specimens of tuberculosis examined from each city, whether positive or negative:

	POSITIVE	NEGATIVE	TOTAL
Jacksonville .....	78	130	208
Tampa .....	71	127	198
St. Augustine .....	0	1	1
Apalachicola .....	3	5	8
Pensacola .....	3	4	7
Ocala .....	11	8	19
Port Tampa City .....	5	2	7
Arcadia .....	0	3	3
New Smyrna .....	1	0	1
Kissimmee .....	1	3	4
Gainesville .....	6	7	13
Ybor City .....	3	2	5
Punta Gorda .....	1	1	2
Titusville .....	0	1	1
Chattahoochee .....	5	0	5
St. Petersburg .....	3	3	6
Sanford .....	1	3	4
DeFuniak Springs .....	2	1	3
Mayport .....	3	1	4
Hague .....	1	0	1
Campville .....	1	0	1
Tallahassee .....	5	4	9
Callahan .....	0	1	1
Mayo .....	1	0	1
Key West .....	4	2	6
Milton .....	1	1	2
Fort Pierce .....	1	0	1
Fernandina .....	0	1	1
Floral City .....	1	0	1
Cocoa .....	1	0	1
Starke .....	3	3	6
Miami .....	3	2	5
Daytona .....	0	3	3
Fort White .....	3	2	5

Table No. 3—Continued.

	POSITIVE	NEGATIVE	TOTAL
San Antonio .....	1	0	1
Sarasota .....	0	1	1
White Springs .....	1	2	3
East Point .....	1	0	1
Brooksville .....	1	0	1
Citra .....	1	3	4
McClenny .....	0	1	1
Florence Villa .....	0	1	1
Quincy .....	1	1	2
Watertown .....	0	1	1
Warcissa .....	0	1	1
Mulberry .....	0	1	1
Lake Butler .....	1	0	1
Green Cove Springs .....	1	0	1
Clearwater .....	1	0	1
Total .....	231	333	564

Table No. 4, showing the number of specimens of suspected typhoid fever, whether positive or negative, which have been examined each month:

	POSITIVE	NEGATIVE	TOTAL
January .....	21	10	31
February .....	10	15	25
March .....	13	19	32
April .....	19	39	58
May .....	23	39	62
June .....	26	44	70
July .....	23	43	66
August .....	24	40	64
September .....	32	59	91
October .....	20	30	50
November .....	19	22	41
December .....	34	21	55
Total .....	264	381	645



Table No. 5, showing the number of specimens of suspected Typhoid fever, whether positive or negative, which have been examined from each city:

	POSITIVE	NEGATIVE	TOTAL
Jacksonville .....	74	123	197
Tampa .....	108	133	241
Tallahassee .....	4	10	14
Bartow .....	3	3	6
Winter Park .....	0	1	1
Punta Gorda .....	3	1	4
McClenny .....	2	2	4
Daytona .....	14	20	34
Palmetto .....	1	3	4
St. Augustine .....	4	7	11
Key West .....	4	8	12
Lake Butler .....	8	16	24
Palatka .....	0	2	2
Arcadia .....	4	5	9
Chattahoochee .....	0	4	4
Live Oak .....	6	6	12
Welborn .....	1	1	2
Mayport .....	1	0	1
Alachua .....	3	2	5
Cocoa .....	0	1	1
White Springs .....	0	2	2
Titusville .....	0	3	3
Starke .....	0	4	4
Apalachicola .....	4	6	10
Dutton .....	1	1	2
Quincy .....	1	3	4
Kissimmee .....	0	1	1
Wauchula .....	1	0	1
Chipley .....	0	1	1
Fort Pierce .....	2	3	5
Jasper .....	1	0	1
Fort Dade .....	3	1	4
Total .....	264	381	645

Table No. 6, showing the number of specimens of suspected diphtheria, whether positive or negative, which have been examined during each month:

	POSITIVE	NEGATIVE	TOTAL
January .....	15	17	32
February .....	3	24	27
March .....	4	15	19
April .....	1	4	5
May .....	3	8	11
June .....	1	2	3
July .....	1	4	5
August .....	9	8	17
September .....	6	13	19
October .....	10	8	18
November .....	23	24	47
December .....	42	74	116
Total .....	118	201	319

Table No. 7, showing number of specimens of suspected diphtheria, whether positive or negative, which have been examined from each city:

	POSITIVE	NEGATIVE	TOTAL
Jacksonville .....	53	99	152
Tampa .....	15	48	63
Tallahassee .....	5	11	16
Pensacola .....	13	16	29
Starke .....	0	1	1
Gainesville .....	3	3	6
Live Oak .....	2	3	5
Quincy .....	0	1	1
Fort Pierce .....	1	0	1
Miami .....	0	1	1
Dunnellon .....	2	0	2
Lake City .....	0	1	1

Table No. 7—Continued.

	POSITIVE	NEGATIVE	TOTAL
St. Augustine .....	12	7	19
Welborn .....	0	1	1
Tarpon Springs .....	1	6	7
Braidentown .....	2	1	3
Milton .....	2	0	2
Arcadia .....	3	1	4
Palatka .....	1	0	1
Port Tampa City .....	2	1	3
Manatee .....	1	0	1
Total .....	118	201	319

Table No. 8, showing the number of specimens of malaria, whether positive or negative, which have been examined during each month:

	POSITIVE	NEGATIVE	TOTAL
January .....	1	5	6
February .....	0	10	10
March .....	0	4	4
April .....	2	13	15
May .....	2	21	23
June .....	4	20	24
July .....	1	17	18
August .....	4	20	24
September .....	3	36	39
October .....	2	19	21
November .....	5	12	17
December .....	4	5	9
Total .....	28	182	210

Table No. 9, showing the number of specimens of suspected malaria, whether positive or negative, examined from each city:

	POSITIVE	NEGATIVE	TOTAL
Jacksonville .....	9	73	82
Arcadia .....	2	14	16
Winter Park .....	0	1	1
Tampa .....	8	56	64
Daytona .....	0	4	4
Punta Gorda .....	0	2	2
Palmetto .....	1	2	3
Tallahassee .....	1	6	7
Fort Pierce .....	0	2	2
Palatka .....	0	2	2
Quincy .....	0	3	3
Live Oak .....	0	2	2
Citra .....	1	0	1
Apalachicola .....	0	1	1
Lake Butler .....	5	3	8
Alachua .....	1	1	2
Fort Myers .....	0	1	1
Crescent City .....	0	1	1
Welborn .....	0	1	1
Orange Park .....	0	1	1
Key West .....	0	1	1
Webster .....	0	2	2
Kissimmee .....	0	1	1
Jasper .....	0	1	1
Total .....	28	182	210



Table No. 10, showing the number of specimens of suspected gonorhea, whether positive or negative, examined during each month:

	POSITIVE	NEGATIVE	TOTAL
January .....	2	1	3
February .....	2	4	6
March .....	2	0	2
April .....	7	1	8
May .....	7	7	14
June .....	3	4	7
July .....	6	4	10
August .....	4	7	11
September .....	4	10	14
October .....	6	13	19
November .....	9	15	24
December .....	5	5	10
Total .....	57	71	128

Table No. 11, showing the number of microscopical examinations of urine during each month:

January .....	5
February .....	5
March .....	5
April .....	6
May .....	10
June .....	13
July .....	3
August .....	14
September .....	16
October .....	21
November .....	13
December .....	7
Total .....	118

Table No. 12, showing the number of pathological specimens, also vaccine, faces, pus, etc., which have been examined during each month:

January .....	2
February .....	1
March .....	3
May .....	4
June .....	11
August .....	14
September .....	2
October .....	7
November .....	2
December .....	4
Total .....	50

Table No. 13, showing the number of water examinations made during each month:

January .....	3
February .....	2
April .....	8
May .....	9
June .....	6
July .....	2
August .....	9
September .....	6
October .....	3
November .....	2
December .....	2
Total .....	52

Table No. 14, showing the cities from which water has been examined:

Jacksonville .....	4
Tallahassee .....	6
Tampa .....	6
Quincy .....	1
Delray .....	1
Bartow .....	5
Watertown .....	1
Madison .....	1
McClenny .....	1
Live Oak .....	8
Lake City .....	2
St. Petersburg .....	3
Key West .....	1
St. Augustine .....	2
Pasco .....	2
Crescent City .....	1
Fernandina .....	1
Daytona .....	3
Pensacola .....	1
Thelma .....	1
New River .....	1
Total .....	52

Employment  
of chemist  
impracticable  
in 1904

Permission was also obtained, at the same meeting which sanctioned the employment of additional help for the laboratory, to engage a chemist who should determine for the Board the composition of various food articles offered for sale in the State, examine the potability of water, analytically and qualitatively, and to detect adulteration of substances of either food or drink. After a very general search and many enquiries, it was not found possible to secure a competent person combining the requisites of chemist and bacteriologist who would be

likely to give satisfaction in both branches. Besides, on due deliberation, it was also concluded that one individual even with ability and capacity in each branch could not, for want of time, attend to the duties properly, which necessarily, would be demanded, and therefore, it was decided to engage an assistant bacteriologist, deferring the selection of a chemist to a future time, when the Board felt that it was in a financial condition to pay a salary befitting the position and to thoroughly equip a chemical laboratory at the same time. Quite recently, an application has been received from Dr. Andrew Fairlie, a former resident of Jacksonville, for the position of chemist to the Board, and his name is here presented for consideration.

Under the amicable arrangement with the trustees of the University of Florida, and Dr. Chas. F. Dawson, the professor of Veterinary Medicine in that institution, the State Health Officer was able to fulfill the instructions of the Board at its last annual meeting to engage a veterinarian, who should investigate diseases occurring in the lower animals and who should also treat those attacked with contagious disorders. The necessity for this service was pointed out when writing on the subject in the last annual report from this office. It was argued then that to satisfactorily complete the supervision over the health of the entire State, with which the State Board of Health is charged under the constitution and existing statutes, a veterinarian should be added to the executive force, so that the health of the domestic animals might be looked after, and certain contagious diseases occurring amongst them and dangerously communicable to the human might be early discovered, isolated, treated and prevented from spread. By the permission thus secured from the trustees of the University of Florida, Dr. Dawson holds an appointment as Veterinarian of the State Board of Health, for which he is paid a per diem when engaged in any work for the Board, with actual travel allowances. Doctor Dawson has performed most excellent service during the year. In many instances, and from his



intimate acquaintance with and knowledge of disorders peculiar to animals, he has relieved the executive of the Board of annoying matters connected with several outbreaks of glanders among horses in different parts of the State, which occurrences it is thought have been due to either direct or indirect importation in herds brought from the West.

Doctor Dawson submits a very interesting account in detail of what has been accomplished in the care and treatment of domestic animals in the State during 1904.

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REPORT OF DR. CHAS. F. DAWSON,  
VETERINARIAN.

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I have the honor to present this, my first annual report as veterinarian to the State Board of Health, covering the period from May 20, 1904, to December 31, 1904.

By a special agreement between the Florida State Board of Health and the trustees of the University of Florida, the University Veterinarian also became the Veterinarian to the State Board of Health; the latter Board paying all expenses incidental to the service the veterinarian might be detailed to perform, plus a per diem salary while actually engaged.

The duty of the veterinarian consists in the investigation and eradication of such animal diseases as are communicable to man. The disease which has principally claimed my attention is equine glanders.

I have encountered one outbreak of dumb rabies in dogs, near Lake City.

Another disease, which is of the utmost importance in other sections, both from a commercial as well as a sanitary aspect, but which fortunately seems rare in Florida, is bovine tuberculosis. No doubt there are cases of the diseases in dairy cattle that have been brought

into Florida already infected. I have known of two cases, in imported cattle, but have not seen the disease in natives.

Lumpy jaw, or actinomycosis, exists to some extent, but is quite rare.

A specimen of "measly pork," containing the larval stage of *Taenia Solium*, a tapeworm found in man was received for diagnosis.

As before stated, my principal duty has been the eradication of glanders in horses and mules, under the law creating the State Board of Health.

Several outbreaks of glanders were investigated by me prior to the agreement between the two Boards, which cannot be included in this report.

The first locality from which a report of glanders came, after your Board had taken up the work, was Monticello. Upon the receipt of a detail from your office, I visited that locality, and found that a veterinarian from Thomasville had been called, had pronounced the disease glanders, and had destroyed the animal and burned the shelter. From the description of the affected horse, I believe the case to have been genuine. I canvassed the neighborhood pretty thoroughly, but found no more cases.

On May 31st, in conformity with a telegraphic detail, I started for Tampa, to investigate a case reported by Dr. N. B. Rhodes. The horse was located at No. 1806 Taliaferro Street, and was used for delivering bundles to the cigar factories. It was a typical case of glanders. The local sanitary authorities, on my advice, destroyed the animal and buried him in the garbage trench. Another horse that had come in contact with him was tested with mallein, but proved himself free of the disease.

The next report came from the Sheriff of Orange County, saying there were suspicious horses in Winter Park. Pursuant to your instructions, I went to Winter Park on June 27th. Here I found a local liveryman had lost one horse and that another was sick. It was a plain case of glanders. Four others that had been kept in the same stall and had eaten and drank from a common

trough were tested with mallein; three of them reacted to the test perfectly. The four animals were destroyed, on my advice. The stalls were thoroughly disinfected, and abandoned for a time. This man lost five out of six, a high percentage. The original case was purchased from a drove in Orlando.

Acting upon your letter of detail of June 30th, I went to Wiersdale to investigate a suspicious horse. I found the animal had been given a mild attack of bronchitis by improper method of drenching.

The next outbreak occurred near Kissimmee, and I was detailed by telegram on July 20th to visit that place and vicinity. A Mr. Drawdy had purchased a lot of horses from a western dealer. Drawdy had already lost several when I reached his place, about 20 miles from Kissimmee. Of the bunch, only one remained alive, and this one was at Peghorn. Inspection of it revealed all the symptoms of acute generalized glanders. It was at once destroyed and buried. At Narcoosee, I found another case on the place of Mr. Evans. After some delay, Mr. Evans was persuaded to destroy the animal.

From continued investigation, I am convinced that the Winter Park outbreak, the Drawdy cases, the Evans case, and a case at Sanford which is not included in this report, all had their starting point in common. Nor, should I be surprised to find that all the outbreaks I have investigated, except those in Tampa, originated in a bunch of horses shipped in from Nebraska by a dealer who supplies this market to some extent.

I desire here to express my thanks for your uniform courtesy, and also the attention given me by the office and Laboratory forces.

Respectfully submitted,

(Signed) C. F. DAWSON, M.D., D.V.S.,

*Veterinarian to State Board of Health.*

During the year, the Board unfortunately lost by resignation, two assistants to the State Health Officer, who in the capacity of Special Agents in the field work of sanitation, supervise the contagious diseases which the laws of Florida impose upon the Board a care and management of. Doctors Warren and Byrd, tiring of the nomadic life which the duties connected with this sanitary supervision entailed, desired to return to an enjoyment and perhaps more profitable occupation of private professional living. It is learned that they are pleasantly located; Doctor Byrd at Kissimmee and Doctor Warren at Crescent City and that they are enjoying the confidence of their respective communities with a fair share of professional patronage of both places. The State Health Officer regretted to lose the valuable assistance which these two gentlemen gave to the Board and esteems very highly the friendly and courteous regard which ever characterized their official and personal relations, and is pleased to know that each is enjoying the best of good health and prosperity. That neither have lost interest in the work of sanitation in the State, or sympathy with the Board in its multitudinous efforts towards bettering the health conditions of the commonwealth, the very excellent accounts of management of sanitary conditions, and of contagious diseases, during the portion of the year while connected with the Health Department of the State, are narratives of satisfactory control, and bear evidence of unceasing concern and interest in the subject. Following the policy recently adopted by the Board in the matter of appointments in this special service, the President of the Board on the recommendation of the State Health Officer, made request at three different periods of the year, of medical men in the State to act as a Board of Examiners, to determine by competitive examination the fitness of applicants for these positions. The State Health Officer is desirous that in all examinations for appointment in the State Health Service, the fitness of persons to fill these positions shall be determined by competitive examination which shall be conducted by non-

Dr. Byrd and  
Dr. Warren  
resign as  
special agents

Competitive  
examinations  
for positions  
in Health  
Department  
of State



interested examiners of the medical profession, so that all feeling or suspicion of partiality or favoritism may be eliminated from the subsequent appointment. At the first examination to fill an original vacancy, held March 15th, Dr. R. F. Goddard, of Quincy was the successful candidate. At this examination, Dr. W. M. Stinson, of Jacksonville, also made the required average, and when there was a vacancy caused by the resignation of Doctor Warren, he secured the appointment. At the second examination to fill a vacancy caused by the resignation of Doctor Byrd, Dr. E. W. Diggett, of Jacksonville, was the successful candidate. At these examinations there were three and two applicants, respectively, who stood the test of both oral and written requirements.

Other  
designations  
than "special  
agents"

The corps of Special Assistants to the State Health Officer although small in number performed most comprehensive service during the year, and their efforts towards disease eradication have extended over extensive areas of the State. What has been accomplished by them is interestingly told in their reports previously noted. It is suggested that the term "Special Agents" be changed to that of First, Second and Third "Assistant to State Health Officer," when speaking of or addressing these Commissioners in the Health Service, as better expressing, and in a more dignified manner, the position held and the relationship enjoyed by them with the Board and its Executive Officer.

Assistant  
State Health  
Officer

In this connection it is proper to remind the Board that the statute creating the State Board of Health provided for an Assistant State Health Officer, and that this office has been vacant since the resignation of Dr. J. L. Horsey, of Fernandina. It would appear that the office should either be filled or that the Legislature should be asked to revoke the requirement, and if the position is revived that the appointment shall only be made after a competitive examination.

License of  
embalmers of  
the dead

The State Board of Health having concurred in the request from the American Public-Health Association for a uniform system of exhumation and transportation of the

dead, adopted rules at the last annual meeting regulating and governing this necessary and needful protective measure to the public health, by providing for an examination of persons wishing to engage in embalming the dead, that the knowledge and ability of each might be ascertained, before issuing a license to pursue this particular business. According, after due legal notice and time had been given to appear for examination and applicants had been informed that a thorough acquaintance with the subject would be insisted upon, the first examination for this purpose was held on May 20th, when fifty undertakers asked for and were given an examination. Transportation companies in the State were at the same time forbidden to accept for movement from place to place, bodies, when more than thirty hours would be required for transit, without exhibiting a permit from the State Board of Health showing that preparation by a licensed embalmer of the State Board of Health had been made. Of this number, 48 passed the required examination, which was made by a Board appointed by the President of the State Board of Health, and consisted of the State Health Officer as chairman, the Bacteriologist of the Board and the President of the Funeral Directors Association of Florida. At this examination the Board was kindly assisted by Prof. Eckels, of Washington, D. C., and Mr. Connaly, of Charleston, an ex-president of the Funeral Directors Association of South Carolina. These gentlemen relieved the Examining Board at different times and their help was appreciated, (the list of applicants being large and the examination to ascertain the respective ability of each being quite rigid, the tediousness of the work, occupying a continuous service of over twelve hours can be appreciated.)

The second examination for this purpose was held July 18th, and at different periods of the year as a special act of consideration, the Board through its members has conducted examinations of those whose business did not permit an attendance at the regular appointed examinations or who through sickness or other disability were

prevented from being present with other applicants, a concession which seems to have been appreciated. At this date there are 66 embalmers of the dead in the State, holding license from the State Board of Health.

The Board  
willing to  
offer every  
assistance

The Board is ever willing to offer every consideration and concession to undertakers either in preparing for an examination to obtain a license or to undergo the examination. The purpose of the Board being to secure capable persons having an intelligent understanding of the subject of embalming and preparing the dead from all phases of sickness, and not to insist upon an autocratic exercise of authority in fixing the dates of examination. Hereafter therefore, the Examining Board of Embalmers will be in constant session, before two of which number any person may appear for examination for license.

Maritime  
quarantine

The Maritime quarantine of the State has had no unusual development during the year and a note of operations is only interesting from that fact. There has been no relaxation of vigilance in closely inspecting vessels arriving at the ports of the State from the infected coast of Mexico, and a proper observance of the United States quarantine regulations for arrivals from all foreign ports, has been insisted upon. By courtesy of Surgeon-General Wyman, of the United States Public-Health and Marine-Hospital Service, the quarantine service, which is national in operation, is supervised under the direction of the Bureau of Public-Health and Marine-Hospital Service, by the State Health Officer, who is for this purpose officially clothed with the authority of an United States Sanitary Inspector, a gracious and considerate act to the State which it is thought not only the State Board of Health appreciates but that the people of Florida gratefully recognize. Elsewhere may be found in tabular form a statement of the arrivals and from what countries at the different ports in the State during 1904.

## KEY WEST QUARANTINE.

DR. S. D. W. LIGHT,

*Acting Assistant-Surgeon.*

Number of vessels arriving between January 1st, 1904, and December 31st, 1904 .....	702
Number from foreign ports .....	412
Number requiring inspection .....	546
Number with sickness on board .....	None
Nature of sickness .....	...
Number of tons of ballast discharged .....	None

## BOCA GRANDE QUARANTINE STATION.

DR. W. BARNES,

*Acting Assistant-Surgeon.*

Number of vessels arriving between January 1st, 1904, and December 31st, 1904 .....	44
Number from foreign ports .....	18
Number requiring inspection .....	18
Number sickness on board .....	1
Number of tons of ballast discharged.....	0

## ST. JOHNS RIVER INSPECTION STATION.

DR. GEORGE MACAULEY,

*Acting Assistant-Surgeon.*

Number of vessels arriving between January 1st, 1904, and December 31st, 1904, (inclusive) .....	407
Number from foreign ports .....	104
Number requiring inspection .....	104
Number with sickness on board .....	1
Nature of sickness .....	Congestion of liver.
Number of tons of ballast discharged .....	0



## ST GEORGE'S SOUND QUARANTINE.

DR. B. B. BLOUNT,

*Acting Assistant-Surgeon.*

Number of vessels arriving at St. George's Sound Quarantine, East Pass, Carrabelle, Florida, during the year ending December 31st, 1904 .....	36
Number from foreign ports .....	32
Number requiring inspection .....	33
Number with sickness on board .....	0
Number of tons of ballast discharged .....	2130

Transactions at Santa Rosa Quarantine, Pensacola, Fla., during calendar year ended December 31st, 1904:

MONTH	Number of Vessels Arriving		No. from Foreign Ports	No. from Domestic Ports	Number Requiring Inspection
	Steam	Sailing			
January, 1904	19	14	27	6	33
February, 1904	22	23	40	5	44
March, 1904	21	15	31	5	36
April, 1904	20	12	27	5	31
May, 1904	20	19	35	4	39
June, 1904	22	14	29	7	36
July, 1904	20	6	19	7	24
August, 1904	10	7	12	5	16
September, '04	11	7	17	1	18
October, 1904	14	11	23	2	24
November, '04	24	15	32	7	35
December, '04	14	20	27	7	32
Total .....	217	163	319	61	368

No. Disinfectected	No. with Sickness Aboard	Nature of Sickness	No. of Tons Ballast Discharged	REMARKS
4			4,705	
5	1	Endemic Fever..	2,500	
3			700	
11			2,735	
14	1	Intermittent Malaria Fever	3,785	
11			2,675	
2			910	
4		Intermittent Malaria Fever	410	
6	1	Malaria Fever	1,940	10 Cases Remittent 1 Case Intermittent
5			1,480	
2			670	
1			1,650	
69	3		22,160	
		Less 10%....	2,216	Estimated amount retained for stiffening tons
			19,944	

## CEDAR KEY QUARANTINE STATION.

DR. R. T. WALKER,

*Acting Assistant-Surgeon.*

Yours of the 27th received today, and I reply at once. Since it was decided that it was unnecessary to inspect the sponge boats, there have been but few boats in our harbor for inspection. During the year I boarded no boats.

We had no boats from foreign ports, and none of the home boats needed inspection.

As to the nature of the sickness on the boats, I treated a number of patients from the sponge boats; their troubles were principally indigestion, diarrhoea, dysentery, gonorrhea and syphilis, with some malarial fever.

There was no ballast discharged in our harbor. I believe this covers all the information you desired.

## CUMBERLAND SOUND QUARANTINE STATION.

DR. J. L. HORSEY,

*Acting Assistant-Surgeon.*

Number of vessels arriving between January 1st, 1904, and December 31st, 1904 .....	296
Number from foreign ports .....	133
Number requiring inspection .....	133
Number with sickness on board .....	0
Nature of sickness .....	
Number of tons of ballast discharged .....	6,106

Financial  
statement

A consideration of the finances of the Board, and the amount of money received and expended during the year, is an interesting study from two standpoints; of the tax payer, and from that of the sanitarian. One expects to see perceptible and immediate evidence for any money expended, the other, is satisfied to wait for results which will ultimately benefit the people in their homes and in their business. Both agree on the common ground, of an economical administration of public funds. While the expenses of the State Board of Health for the past year may have been slightly in excess of several previous years, yet it should be taken into consideration that the demands on the Board's treasury have been greater in 1904 than usual, on account of the number of dangerously contagious maladies which have occurred and which the Board under the law is charged with the care and management of. It will be noted, however, that although the number of cases of smallpox were some three or four hundred more than in 1903, yet the Board discharged its duty in the care and treatment of these patients in 1904, at a sum less than in the previous year. The Board had under management, according to reports received, nearly 1,000 cases of smallpox, which were looked after at an average cost of \$6.95 per case, which it is thought must be conceded to be an exceedingly low figure. The following table gives the amount of money expended for different purposes in sufficient detail not to require further explanation.



1904.

Statement of money received upon requisition on the State Comptroller, showing amount of requisitions, amount expended by the Board to meet current expenses each month, and the amounts returned to the State Comptroller, together with vouchers in settlement of each month's account respectively:

Month.	Requisition.	Expended.	Returned Comptroller.
January .....	\$2,500.00	\$1,685.39	\$ 814.61
February .....	2,500.00	2,169.22	330.78
March .....	2,500.00	2,492.85	7.15
March, (Special) ..	1,299.19	1,299.19	
April .....	2,500.00	2,360.39	139.61
May .....	2,500.00	2,187.55	312.45
June .....	2,500.00	2,457.80	42.20
June (Special) ...	1,246.88	1,246.88	
July .....	2,500.00	2,105.61	394.39
July (Special) ...	200.00	200.00	Bill J. K. Rainey
August .....	2,500.00	2,253.47	246.53
September .....	2,500.00	2,496.04	3.96
October .....	2,500.00	2,487.09	12.91
Oct. (Special) ..	2,140.00	2,140.00	(Hosp., Pensacola
November .....	2,500.00	2,206.42	293.58
Dec. (Special) ..	487.73	487.73	
December .....	2,500.00	2,486.97	13.03
	\$35,733.80	\$33,122.60	\$2,611.20

Amount of usual monthly requisitions

honored by State Comptroller .....\$30,000.00

Amount of special requisitions .... 5,733.80

Amount expended by Board on duly rendered

vouchers .....\$33,122.60

Amount returned to State Comptroller for credit

of Board in State treasury ..... 2,611.20

\$35,733.80 \$35,733.80

ERRATA

December (Special) on page 147, should read \$847.73.

## CURRENT EXPENSES.

1904.

Per diem and mileage of members \$	151.60	
Salary of State Health Officer ....	3,000.00	
Traveling expenses of State		
Health Officer .....	446.25	
Clerical assistance .....	3,265.35	
Attorneys' retainer .....	325.00	
Office rent, lights, telephones, postage, expressage, office appliances and other office incidental expenses	1,354.84	
Printing, stationery, statistical blanks, record books, etc. ....	1,360.47	
Telegraph tolls .....	263.15	
Salaries and traveling expenses of		
County Sanitary Agents .....	2,550.00	
Miscellaneous, insurance, etc. ....	124.92	
Domestic sanitation, Escambia Co.	900.00	
Domestic sanitation, Monroe Co. ..	104.00	
	<hr/>	<hr/>
	\$13,845.58	\$13,845.58

## EXTRAORDINARY EXPENSES.

Smallpox control and management, and salaries and expenses of		
Special Agents .....	\$11,173.06	
Cost of vaccine, antitoxins, serums, etc. ....	1,380.04	
Suppression of glanders in horses ..	142.20	
Repairs and maintenance Duval County Isolation Hospital .....	547.27	
Repairs to Hillsborough County Isolation Hospital .....	16.77	
Establishment of Escambia County Isolation Hospital, Pensacola, Fla., completed Oct., A.D., 1904 .	2,140.00	
Paid claim of Dr. J. K. Rainey, deceased, account smallpox St. Johns County, in 1902 and 1903..	200.00	
	<hr/>	<hr/>
	\$15,599.34	\$15,599.34

## LABORATORY DEPARTMENT.

Salary of Bacteriologist and assistant to Bacteriologist .....	\$2,566.56	
Equipment and maintenance .....	1,111.12	3,677.68
	<hr/>	<hr/>
	\$3,677.68	
Total obligations for the year 1904, discharged .....	\$33,122.60	



Ample funds  
a prerequisite  
to both  
efficient and  
economical  
health admin-  
istration

Like any other enterprise, to satisfactorily and profitably conduct, whether of a commercial or philanthropical character, money is a prime necessity, and Boards of Health, whether national, State or municipal are no exception to this inflexible requirement. It has been truly said that a well filled treasury will afford a better bulwark against disease importation and for disease suppression, than all other methods which can be devised. An ability to promptly discharge all obligations as they arise, enables Boards of Health to efficiently, and to economically at the same time, perform their work, in the hire of employees, or in purchase of needful preventives. A promise to pay when an appropriation is made by the Legislature, or by a City Council, never produces as good results as "cash down," when the service is finished. Therefore it is pleasing to be able to state that the State Board of Health of Florida has had ample funds during the past year to meet and fulfill every demand made upon its treasury, and while strict economy has been insisted upon by the Executive of the Board, and a close scrutiny has been had of every expenditure, and no obligation has been contracted for without due inquiry into the necessity and merit of the same, still there is a respectable surplus to the credit of the Board in the State treasury. There never can be too much money in the hands of the State Treasurer and subject to the requisition of the State Board of Health. An existence of a large State Board of Health fund, does not mean extravagant spending of the peoples' money, for every dollar used by the State Board of Health must be on approved vouchers by the President of the Board, and audit of the Comptroller. Every bill paid by the Board has three checks against it as a safeguard or proper disbursement of the Board's funds. The State Health Officer certifies that the services has been made, or the articles purchased, and not only that the charges are reasonable and just, but that both were needful for the proper maintenance of the Health Department. The President of the Board must give his approval and the Comptroller his sanction before the money is sent

for payment of the claim. Florida attracts attention and admiration of other State Boards of Health, who commend the generous support which the State gives to the State Board of Health not only financially but by statutory enactments along the line of sanitary demands and requirements. It is pleasing to hear it said by representatives of other State Boards of Health, that Florida is far in advance of the older States of the Union in recognizing the progress which preventive medicine is rapidly and daily making, and by providing ready means to investigate and push forward the work. It must always be regretted that the wisdom of returning to the Board's treasury the money received from the sale of the quarantine stations to the United States Treasury Department (Marine-Hospital Service) was not appreciated, and the Board allowed to receive its own funds back into its treasury, which had been spent in erecting maritime safeguards against foreign disease importation. Through a technical contention the disbursing officers of the United States Treasury Department refused to effect the sale of the quarantine stations with the State Board of Health, but paid in the money to the Board of State Institutions who left the further disposal of some thirty thousand dollars, belonging to the State Board of Health, to the Legislature. If this money was now at the command of the State Board of Health, the Board could with Legislative approval, erect a suitable building for office and Laboratory requirements, constructed and furnished upon modern ideas of adaptability and convenience. This proposition is plainly in the line of an economical administration, for the rental paid by the Board for office and for Laboratory space is a fair index of a rate of interest received by landlords upon an investment which would give the Board more room, now greatly needed, besides the additional comfort and satisfaction of occupying its own property. The suggestion for purchase of land, and erection of a suitable building for office and for laboratory use, is here made to the Board for due consideration with an expressed hope that a request may be made to the Legislature to

Florida  
praised by  
other States  
for liberal  
treatment of  
State Board  
of Health

permit this expenditure which shall be provided for by an appropriation from State funds—a restitution merely of money which under a misapprehension and misunderstanding seems to have been accidentally diverted from a legitimate purpose.

Conference of  
State Boards  
of Health  
with Surgeon-  
General  
Wyman

Representing the State Board of Health in an official capacity, the State Health Officer attended the conference of State Boards of Health with the Surgeon-General of the Public-Health and Marine-Hospital Service, held at Washington in June last, which an Act of Congress yearly provides for. Besides being a pleasant and agreeable reunion of State Health Officials the meeting was instructive by affording an interchange of views on sanitary subjects, by reading of papers on questions affecting the hygienic welfare of the people, and in a general discussion of the needs and necessities for improved health conditions everywhere.

Following the custom of the previous meeting, the Surgeon-General asked each representative of a State organization present, for a detailed statement of transactions in sanitary matters in his State during the past year. When Florida was called, the State Health Officer was pleased to respond very favorably on health conditions, sanitary legislation, and financial stability of the State Board of Health. He said in part:

"Responding to your invitation to speak for the sanitary interest of Florida, I am happy to say that since we last met, June, 1903, the State which I represent has made fair progress in measures calculated to better the health of the commonwealth. It is pleasing also to say that the health of Florida during the past year has been very good. According to the statistical report made at the annual meeting of the State Board of Health, in February of this year, the death rate for 1903 was computed from returns received, as 7.37 per 1,000 of population, and the birth rate at 14.97. No epidemics of any kind disturbed the comfort or tranquility of the people. Slight outbreaks of diphtheria were speedily controlled by the prompt use of diphtheritic antitoxin, and occasional cases of scarlet

fever being closely looked after, but isolation and disinfection, did not materially disquiet communities in which they happened to occur. Smallpox has given the State Board of Health the greatest annoyance, and entailed the largest monetary burden of any of the contagious diseases which the Board has to contend with. The statutes of Florida relating to certain contagious diseases, their care and control, imposes upon the State Board of Health an imperative duty of management, both of police and expense, of every case of smallpox, cholera or yellow fever which may occur in the State, and, while the cases of smallpox have been mild, with but slight mortality, yet the constant exercise of supervision which every occurrence makes obligatory upon the Board, increases the cost of maintenance of the Board, and keeps almost in constant travel the three Special Agents which the Board gives to the State Health Officer as his field assistants. In the annual report of the State Health Officer which I here present, it will be seen from the admirable reports on the management of smallpox outbreaks in various parts of Florida, by the Special Agents referred to, that 664 cases of smallpox were cared for by the State Board of Health and at a cost of \$6.95 per case. The management consists of treatment medically, food, nursing, guarding and subsequent disinfection. It is thought that this is not a bad showing for an economical management of a disease which generally runs through a period of from three to six weeks. Until the general public is educated to the appreciation of vaccination, its benefits, and its protection, smallpox may be expected to exist throughout the country. Particularly where travel is great and facilities for getting from place to place at a rapid rate, are so ample. An ineffectual effort was made in Florida in 1901, at the session of the Legislature of that year to pass a Compulsory Vaccination Law, which would principally prevent the employment of unvaccinated labor in the State, but the opposition to the measure was too strong.

"Respecting diphtheria and its control, I would like here to mention that the State Board of Health furnishes



antitoxin free to indigent patients on a physician's prescription and certificate of financial inability of patient to procure the remedy. Druggists in Florida have been requested to keep this serum in stock so that the remedy may be promptly accessible when required. The State Board of Health pays the druggists for the article, as previously stated, allowing a fair profit on the remedy. At the annual meeting of the Board, in February, new rules and regulations were adopted, which are here presented, and I would invite attention to the method proposed for the collection of vital statistics which was adopted, and which is in harmony and on the lines recommended by the Bureau of Vital Statistics of the General Government, as set forth in a circular letter from Mr. W. A. King, Chief Statistician of the Census Office and his assistant Dr. Cressy Wilbur.

"The Board also seeks to regulate the "spitting habit" in public places, and to supervise the sanitation of public conveyances.

"To place in operation the recommendation of the conference of State and provincial boards of health in regard to the transportation of the dead, which rules the State Board of Health of Florida adopted, an examination was had of all undertakers who wished to practice embalming, and to those passing a satisfactory examination conducted under the direction of the State Board of Health, licenses have been issued. Hereafter, only bodies prepared for shipment by a licensed embalmer, will be received by the transportation companies in the State.

"The work of the Bacteriological Laboratory of the Board, mention of which was made at the last conference, has so increased that an assistant has been engaged in order to keep up with the demands made upon that institution for examination of blood, sputum, urine, and pathological specimens sent in for diagnosis. Recently the Bacteriological examination of water has been added to the efforts of the Laboratory to serve the health interests of the people. The method of conducting these examinations was described when speaking on the subject last

year. The examination is done at the expense of the State, and the Laboratory is open to any citizen of Florida without charge for advice or consultation. The report of the director of the Laboratory, Dr. Edward Andrade, on the result of the first year's work in this field of scientific investigation is sufficiently interesting for me to ask that it may be allowed space as a part of these remarks on the health work of the State Board of Health of Florida.

"The maritime sanitation of the State is operated by the Public-Health and Marine-Hospital Service, the transfer from State control to the Government having been effected in 1901. The administration is entirely satisfactory, and is very efficiently performed.

"Before closing these remarks, I wish to thank you, Mr. Chairman, for the very flattering compliment paid me in your appointment of Chairman of the Committee on Yellow Fever. I regret that I have no special report on this subject to make at this time. I communicated with my associates on the committee, but received only one reply, from Dr. Tabor, State Health Officer of Texas, who regretted that urgent duties prevented him from writing anything to be submitted to the conference on this highly interesting subject. I trust that at the next meeting the committee may have something of interest to say.

"I believe Mr. Chairman, this is about all I have to speak on at present, on behalf of the State Board of Health of Florida, and thank you for according me so much time."

The State Health Officer also represented the Board and the medical profession of Florida at the meeting of the American Medical Association at Atlantic City June 6th where he was a member of the House of Delegates, the legislative branch of the Association. Again the State Health Officer performed the agreeable duty of representing the Board at the annual meeting of the American Public-Health Association in Havana, Cuba, January 9th to 14th, of this present year. These meetings were all pleasant gatherings of medical men and sanitarians from all over the North American Continent, whose com-

Attendance  
on other  
sanitary or-  
ganizations  
as delegate  
from State  
Board of  
Health

ing together once each year bespeaks an interest in the cause of humanity, unselfish and generous, in a patient search for and constant hope of scientific discoveries which are constantly lessening disease, prolonging life, and decreasing crime. It was gratifying to hear the work of the State Board of Health of Florida so approvingly spoken of. It evidenced an intimate acquaintance with the Boards' acts which could only have been gotten from a careful reading of the annual reports.

Legislatures have generally cooperated with Board's efforts in behalf of the health of the people

The several Legislatures of the State which have convened since the organization of the State Board of Health have generally been found in such hearty sympathy with the aims and purposes of the Board and have evinced a confidence which is indeed gratifying and encouraging, by providing in statutory enactments restrictive measures against disease propagation in various ways, which the Board has requested or suggested, that there remains but little if anything more to recommend at this meeting for the Board to invite attention of the Legislature of 1905, soon to be in session. It has been suggested by the Board's legal advisor, Hon. E. J. L'Engle, that if the Legislature will give approving sanction to the rules and regulations of the Board, especially of those subjects which deal with collection of vital statistics, transportation of the dead, licensing embalmers of the dead, sanitation of public buildings, and public conveyances, and restricting the importation of smallpox in the State, that much needless contention as to the authority of the Board to enforce these regulations or the Constitutional power of the Legislature to delegate this authority to the Board, would be removed, and that the Board could proceed with the humanitarian work of suppressing disease and preventing sickness in the State with less friction with the people and less annoyance to itself. This opinion is heartily concurred in by the State Health Officer. Most certainly, the Board should earnestly request of the Legislature an enactment which will not only prevent the importation of smallpox into Florida from neighboring States, where a supervision and segregation and management of

this disease is not as vigilantly and actively undertaken as in this State, but which will reduce sickness and consequent expense from this source to a minimum, not to mention the abatement of a constant uneasiness which cases of smallpox always occasion in every community, notwithstanding if mild in character.

Sufficient has been said to form an idea of what recommendations are thought to be needful to improve the health system of the State, or to lessen the expense of management.

The Legislatures which have convened since the organization of the Board in 1889, have always given due consideration to measures suggested by the Board in the interest of the peoples' health and have proven a confidence in the ability of the Board to determine what is necessary in this direction by almost unquestionably approving measures which have been suggested, and enacting them into laws. Therefore, it is hoped that the same faith in the capability of the Board to decide questions relating to public sanitation may be expressed this year, by enacting in necessary statutes:

*First.*—A provision to accurately and intelligently collect the vital statistics of the State;

*Second.*—To require persons wishing to engage in the business of embalming the dead for transportation, either within or without the State to obtain a license showing capability and sufficient knowledge to engage in such occupation; Recommendations

*Third.*—To prevent spitting in public places, on floors or walls of public buildings and in public conveyances as a lessening factor of the probable cause of transmission of pulmonary tuberculosis;

*Fourth.*—To prohibit the burial of persons without proper record, such a provision being preventive of commission of crime, and assisting in determining the life wave of the State, and;

*Fifth.*—(Which in this present exigency is most important to be considered), to provide for such compulsory vaccination of laborers and other classes of opera-



tives, who for the most part are the active propagators of smallpox, that the disease may finally cease, or only exceptionally prevail, in Florida.

#### Neurology

While it is always sad and distressing to note the passing away of friends and associates, to the Great Beyond, for then we realize that the kindly hand grasp and cordial welcome will never more be felt or heard on this side of the grave, yet by these daily reminders of change we are taught the mutability of life, and that we make friends but to lose them or in turn leave them behind us. It is pleasing however to recall in memory's hallowed thoughts, their faces and strong personal characteristics or individual peculiarities, and if, as some believe, and it is an acceptable faith, that our dead, see in the spirit and know whatsoever is being done on earth, what a comfort and gratification it must be to them to be assured that they are not forgotten and that their good deeds are spoken of and appreciated, and that their mistakes are unremembered.

#### Doctors Murray, Sweeting and Rainey

At the last meeting of the Board the writer spoke of the passing away from active service, of three of the medical profession of the State, who had always been warm supporters of sanitary science; had been constantly interested in the work of the State Board of Health and were active participants in the daily work to the time of death. Doctors Murray, Sweeting and Rainey, were pioneers in health matters in Florida. They contributed both by pen persuasion and influence in directing general sentiment in favor of public sanitation and hygiene, and after the organization of the State Board of Health in 1889, continued to manifest by unceasing efforts in the same direction and by generous support and assistance. They laid down their life work, although uncompleted, and yet within the allotted period of man's expectation, and obeyed the summons of the Great Physician, unflinchingly, unhesitatingly, but trustfully, with the full assur-

ance of the Divine Promise, "For as much as ye have done it unto one of the least of these my brethern, ye have done it unto Me."

Again our ranks have been entered by the Grim Messenger, the call has been made, and another co-laborer in the sanitary field has joined the invisible circle of those who have just "stepped across the divide," and who with us were once engaged in teaching the gospel of sanitation and good health.

Dr. Diego Manuel Echemendia, formerly quarantine officer at the Tampa Bay quarantine station, when under control of the State Board of Health, but at the time of his death, an Acting Assistant Surgeon in the Public-Health and Marine-Hospital Service at Havana, died in Cuba's capital December 19th of this past year. Doctor Echemendia was born in Sanctus Eperitus Province, of Santa Clara, Cuba, in 1840, and was therefore, 64 years of age. He was educated at the University of Havana and received his B. A. degree and subsequently his medical degree from that institution in 1863. He practiced his profession in Cuba for some little while after graduating, during which period he had charge in an epidemic of cholera, but becoming connected with the political troubles in Cuba in 1869, he left the island to escape Spanish persecution and death—he was sentenced to be shot in El Moro, but escaped and made his home in Baltimore, Md., for eleven years, and where he also became an adopted citizen of the United States. In 1880 he removed with his family—wife and children—to Jacksonville, Florida, where he rendered most excellent service to the Duval County Board of Health in an outbreak of smallpox which occurred in Jacksonville and Duval County in 1883. He was also an efficient officer of that Board in 1888 during the epidemic of yellow fever which scourged Jacksonville and other places in Florida, and was chief of the disinfecting corps, under the Marine-Hospital Service administration of relief measures, which so thoroughly effected a post-epidemic disinfection of that city. His careful administration and minute

Dr. D. M.  
Echemendia

attention to details of management attracted attention at that time, and after the organization of the State Board of Health, in 1889, he was offered, and accepted, a position as State Quarantine Officer of the Tampa Bay Quarantine Station. For nearly nine years Doctor Echemendia held that position, resigning in 1890 to accept a post of very similar duty at Havana, in the service of the United States Government. He enjoyed the confidence and trust of the State Board of Health and of the people of Florida, during his official connection with the Board at the Tampa Bay Quarantine, which trustfulness was in no wise diminished with his transfer to Havana, for the Board and the people of his adopted State were pleased at his promotion and felt complimented that one of their number had been chosen for such an important duty in a foreign country. During his connection with the quarantine service of the State he was respected by the shipping interests of the country, which ever received considerate treatment at his station. He was well thought of for his ability and careful supervision of every detail of management connected with the subject of quarantine. His records were a marvel of neatness and accuracy, and elicited praise from the national quarantine officers when inspecting his station. His diary of daily events not only carefully noted the important occurrences, but showed records of indirect connection with the detention of vessels, and his suspicions of hidden facts which had not been found from an inspection of log books or a questioning of ship masters. His honesty of purpose and his integrity of management were unquestionable, and although oftentimes a performance of duty was disagreeable yet he never swerved from his conception of truth and a conscientious regard to principle. With a firmness in obeying himself, and compelling obedience by others, he combined a courteous and considerate treatment of every vessel and of every passenger which visited his station or passed under his inspection and supervision. In temperament Doctor Echemendia was a philosopher; ever ready to view the

best in human nature, contending for good in all men, contented with conditions oftentimes of personal inconvenience and discomfort, arguing that circumstances might be worse or that others had not half as considerate treatment.

In nature and disposition Doctor Echemendia was a most lovable man. He possessed a sunny disposition which reflected itself on every one with whom he came in contact. During the fifteen years of intimate acquaintance, the writer does not remember to ever having seen him ruffled in temper or manifest annoyance at anything. His keen sense of humor, ready repartee, which never left a sting of unpleasantness, and amusing comparisons made him not only a charming companion but added to his popular conduction of official affairs oftentimes unpleasant and embarrassing when required to exercise a discriminating decision of passengers who had not fulfilled the requirements of quarantine exactions of travel.

In his domestic life, which the writer was frequently permitted to enjoy the hospitality of, Doctor Echemendia appeared to better advantage than in the office. Surrounded by a devoted wife, children and grandchildren, loving and beloved, he manifested the characteristics of a fond husband and affectionate father. Self sacrificing and self denying, he was ever solicitous of their welfare, ever considerate of their comfort and happiness. Although the circle of his acquaintance was large yet he seldom visited, for he was truly a home man.

The Board honors itself by honoring the memory of such a man as Doctor Echemendia who, unmindful of his own wants or his own comfort was ever thoughtful of the welfare of others, whether strangers or friends. The writer will always cherish a tender remembrance of his warm friendship and of his patriotic work in the cause of public sanitation.



## Conclusion

This concludes the report of this office for the year 1904. The State Health Officer has tried to tell the story of sanitary management in the State truthfully and concisely, that a reading of it might not tire but would rather interest, and conduce to thoughtful consideration of the topics discussed. As he stated at the commencement of this paper, the attempt would be not to enter into a theoretical or problematical argument of questions more directly interesting to the sanitist, but to so place before the public plain facts of practical utility and of every day occurrences, that the laboring man with limited time to read, as well as the legislator and well to do citizen of more enlarged opportunities, may think seriously enough of the subject, of disease prevention and suppression, with its attended evils and blessings, to devote some spare moments to find out what the State Board of Health has done, is doing, and wishes to do in the future, for the comfort, prosperity and reputation of Florida.

The State Health Officer is conscious of many shortcomings of administration; failure to do many things which he would like to have done during the year, but he asks for the same generous exercise of leniency, which the people have in the past ever considerately given. It is felt that the very best under all circumstances has been done. With a larger office force, which meant increased expenses for the Board to meet and defray, the "Health Notes" could have been revived, and other statistical matter compiled and published. It has been conceded for many years, in fact since the Board was organized some sixteen years ago, that the main effort towards an improvement of the health conditions of the State should be through appeals to intelligent thought and reasoning by the people, and this can only be accomplished by educational means. By teaching hygiene in the schoolroom, not as a dry and uninteresting subject, to be dismissed from the mind of the child as soon as the class recitation is finished, but in an attractive way

that what is said by the teacher will be remembered and thought of at home. The elder members of the family will then receive a portion of this information for out of the abundance of the mind as well as the heart the mouth speaketh, and every teacher knows as well as all others who have had much dealings with children that a subject of interest at school is always spoken of and debated at home. By publications containing terse articles on subject connected with domestic health: by notices having words of warning, and cautioning against contracting certain contagious disorders; and advice as to prevention. These are educational measures, an atom of which information may perhaps falling upon heeding ears, be received, and bear fruit by preventing sickness in an household or saving of life of some little one.

With this meeting the State Board of Health Officer finishes the sixteenth year of service in the Health Department of the State, a service which has been instructive, pleasant and enjoyable, from the fact that he has ever received the cordial support of the Board and, likewise the entire confidence of the people of his native State, and whom because of that trust reposed in him it has been always a pleasant gratification to serve.

JOSEPH Y. PORTER, M. D.,

*State Health Officer.*

The State  
Health Officer  
completes 16  
years of ser-  
vice in State  
Health  
Department

Table showing *ages of decedents* in Florida for year ending December 31, 1904, based on mortality returns to the State Board of Health of Florida during the period, divided into *color* and *sex*.

AGES	WHITE		BLACK		T'T'L
	M.	F.	M.	F.	
Under 1 year .....	140	110	150	79	479
From 1 to 5.....	92	63	70	30	255
From 5 to 10.....	50	34	41	12	137
From 10 to 15.....	25	41	28	19	113
From 15 to 20.....	17	56	30	51	154
From 20 to 25.....	51	40	42	30	163
From 25 to 30.....	60	30	10	19	119
From 30 to 40.....	180	94	120	60	454
From 40 to 50.....	130	120	90	82	422
From 50 to 60.....	110	119	96	75	400
From 60 to 70.....	207	166	104	120	597
From 70 to 80.....	60	70	47	71	248
From 80 to 90.....	67	43	50	31	191
From 90 to 100.....	10	23	9	11	53
Over 100 .....	1	2	3	5	11
Not stated .....	50	8	50	21	129
Total .....	1250	1019	940	716	3925

Death rate of State of Florida by months, for year ending December 31, 1904, based on reports made to the State Board of Health for that period.

Population, 528,543. United States census of 1900.

MONTHS.	DEATH RATE.
January .....	8.01
February .....	8.00
March .....	7.60
April .....	7.50
May .....	6.99
June .....	6.70
July .....	7.20
August .....	7.05
September .....	7.10
October .....	7.30
November .....	7.60
December .....	8.00
Total .....	7.42

Birth and death rates per 1,000 of population for each of the forty-five counties of the State of Florida, based on reports made to the office of the State Board of Health during the year, ending December 31, 1904.

Population, United States census, A. D. 1900.

COUNTIES.	POPULATION.	BIRTH RATE.	DEATH RATE.
Alachua .....	32,245	8.46	2.10
Baker .....	4,512	23.93	2.65
Bradford .....	10,295	12.43	3.98
Brevard .....	5,158	27.79	9.49
Calhoun .....	5,182	19.70	4.05
Citrus .....	5,391	5.19	5.19
Clay .....	5,635	2.48	1.95
Columbia .....	17,094	9.01	2.92
Dade .....	4,955	30.07	13.32
DeSoto .....	8,047	31.31	12.92
Duval .....	39,733	22.72	23.98
Escambia .....	28,313	21.29	11.96
Franklin .....	4,890	20.44	.22



Gadsden .....	15,294	11.90	3.85
Hamilton .....	11,881	7.07	1.26
Hernando .....	3,638	6.59	15.69
Hillsboro .....	36,013	11.60	10.91
Holmes .....	7,762	7.72	.19
Jackson .....	23,337	10.24	1.84
Jefferson .....	16,195	5.60	.56
Lafayette .....	4,987	13.26	2.68
Lake .....	7,467	9.78	2.40
Lee .....	3,071	17.29	6.51
Leon .....	19,887	3.06	1.10
Levy .....	8,603	11.97	4.18
Liberty .....	2,956	11.87	.03
Madison .....	15,446	7.59	1.81
Manatee .....	4,663	28.52	12.23
Marion .....	24,403	9.38	2.90
Monroe .....	18,006	41.20	26.31
Nassau .....	9,654	13.77	17.71
Orange .....	11,374	14.58	9.23
Osceola .....	3,444	24.39	9.87
Pasco .....	6,054	10.90	5.93
Polk .....	12,472	7.61	5.45
Putnam .....	11,641	22.66	10.30
Santa Rosa .....	10,293	8.04	2.81
St. Johns .....	9,165	22.14	8.00
Sumter .....	6,187	20.52	3.23
Suwannee .....	14,554	3.71	1.65
Taylor .....	4,000	7.00	1.00
Volusia .....	10,003	23.39	10.97
Wakulla .....	5,149	12.62	.77
Walton .....	9,346	8.23	2.88
Washington .....	10,154	17.03	3.34
Total .....	528,543	14.10	7.42

Birth and death rate by sections, based upon reports to the office of the State Board of Health during year 1904, showing rates per 1,000 of population for Atlantic and Gulf Coasts and Interior Counties.  
Population, United States census, 1900.

## ATLANTIC COAST COUNTIES.

COUNTIES.	BIRTH RATE.	DEATH RATE.
Nassau .....	13.76	17.70
Duval .....	22.72	24.23
St. Johns .....	22.15	8.00
Brevard .....	27.79	9.49
Volusia .....	22.39	10.97
Dade .....	30.07	13.32
Total .....	23.14	13.00

## GULF COAST COUNTIES.

COUNTIES.	BIRTH RATE.	DEATH RATE.
Escambia .....	21.29	11.96
Santa Rosa .....	8.04	2.81
Walton .....	8.23	2.88
Washington .....	17.03	3.34
Calhoun .....	19.70	4.05
Franklin .....	20.44	2.22
Wakulla .....	12.62	.77
Jefferson .....	5.56	.56
Taylor .....	7.00	1.00
Lafayette .....	13.26	4.39
Levy .....	11.97	4.18
Citrus .....	5.19	5.19
Hernando .....	6.59	15.69
Pasco .....	10.90	5.93
Hillsboro .....	11.60	10.91
Manatee .....	28.52	12.23
DeSoto .....	31.31	12.92
Lee .....	17.29	6.51
Monroe .....	41.20	26.31
Total .....	15.40	5.60

## INTERIOR COUNTIES.

COUNTIES.	BIRTH RATE.	DEATH RATE.
Alachua .....	8.46	2.10
Baker .....	23.93	2.65
Bradford .....	12.43	3.98
Clay .....	2.48	1.95
Columbia .....	9.01	2.92
Gadsden .....	11.90	3.85
Hamilton .....	7.07	1.26
Holmes .....	7.72	1.99
Jackson .....	10.24	1.84
Lake .....	9.78	2.40
Leon .....	3.06	1.10
Liberty .....	11.87	.33
Madison .....	7.59	1.81
Marion .....	9.38	2.90
Orange .....	14.58	9.23
Osceola .....	24.39	9.87
Polk .....	7.61	5.45
Putnam .....	22.66	10.30
Sumter .....	20.52	3.23
Suwannee .....	3.71	1.65
Total .....	11.41	3.66

Table showing number of births, marriages and deaths in Florida for year ending December 31, 1904, based on reports made to the State Board of Health for that period.

Population. United States census, A. D., 1900—528,543.

COUNTIES	BIRTHS		MAR'AGES		DEATHS		POPULATION
	W.	B.	W.	B.	W.	B.	
Alachua .....	143	132	166	312	42	27	32,245
Baker .....	80	28	48	20	11	1	4,512
Bradford .....	94	34	118	51	33	8	10,295
Brevard .....	83	21	54	60	42	7	5,152
Calhoun .....	79	23	60	20	16	5	5,182
Citrus .....	25	2	32	74	19	8	5,391

COUNTIES	BIRTHS		MAR'AGES		DEATHS		POPULATION
	W.	B.	W.	B.	W.	B.	
Clay .....	11	2	52	33	9	8	5,391
Columbia .....	115	38	81	126	40	10	17,094
Dade .....	101	48	97	88	59	10	4,835
DeSoto .....	230	22	96	38	90	14	8,047
Duval .....	381	522	285	482	331	632	39,743
Escambia .....	342	261	231	195	168	171	28,313
Franklin .....	48	52	13	28	8	3	4,890
Gadsden .....	73	106	55	173	36	23	15,294
Hamilton .....	58	26	50	49	11	4	11,881
Hernando .....	14	10	23	54	27	20	3,638
Hillsboro .....	304	114	418	214	265	128	36,013
Holmes .....	57	3	100	48	13	2	7,762
Jackson .....	122	117	211	200	36	6	23,337
Jefferson .....	17	75	32	119	3	6	16,195
Lafayette .....	64	2	58	40	9	4	2,987
Lake .....	45	17	46	71	14	4	7,467
Lee .....	48	5	39	13	15	5	3,071
Leon .....	16	44	30	204	15	8	19,887
Levy .....	60	43	65	97	19	17	8,603
Liberty .....	16	19	13	26	0	1	2,956
Madison .....	28	89	100	111	18	10	15,446
Manatee .....	122	11	56	25	40	8	4,663
Marion .....	64	165	131	248	43	27	24,403
Monroe .....	488	254	174	83	292	182	18,006
Nassau .....	42	91	71	89	49	122	9,654
Orange .....	87	78	184	99	87	18	11,374
Osceola .....	72	12	35	15	28	6	3,444
Pasco .....	62	4	19	11	25	11	6,054
Polk .....	82	13	120	62	50	18	12,472
Putnam .....	123	132	137	83	75	46	11,641
St. Johns .....	134	69	63	60	53	18	10,293
Santa Rosa .....	68	15	110	60	24	5	9,165
Sumter .....	90	37	42	30	14	16	6,187
Suwannee .....	37	17	150	92	13	11	14,554
Taylor .....	23	5	61	39	4	0	4,000
Volusia .....	143	91	91	102	69	32	10,003
Wakulla .....	43	22	29	38	4	0	5,149
Walton .....	56	21	87	51	22	4	9,346
Washington .....	143	29	118	63	28	6	10,154
Total .....	4533	2921	4254	4156	2269	1656	528,543



Table showing number of Births, Deaths, Marriages; and Deaths from eight different causes, in the State of Florida, for year 1904, as per reports made to the State Board of Health of Florida. Population, United States Census, 1900.

COUNTIES	BIRTHS		DEATHS		MARRIAGES		Consumption	Diphtheria	Scarlet Fever	Malaria	Typhoid Fever	Measles	Pneumonia	Smallpox
	B		B		W									
	W	B	W	B	W	B								
Alachua	143	132	42	27	166	312	3	2		3	1		5	
Baker	80	28	11	1	48	20						3	2	
Bradford	94	34	33	8	118	151	2				4			
Brevard	83	21	42	7	54	60	8			1	3		4	
Calhoun	79	23	16	5	60	20	2			1			1	
Citrus	25	2	19	8	32	74	2			2		3	1	
Clay	11	2	9	2	52	33				2			1	
Columbia	115	38	40	10	81	126	1			4	3	2	4	1
Dade	101	48	59	10	97	88	11				3	1	4	
DeSoto	230	22	90	14	96	38	4			9	3	6	6	
Duval	381	522	331	632	285	482	150	2		27	31	1	82	2
Escambia	342	261	168	171	231	195	39	1		1	13	2	14	
Franklin	48	52	8	3	13	28	1			1			1	
Gadsden	73	106	36	23	55	173	2			11	5		5	2
Hamilton	58	26	11	4	50	49	1			2			3	
Hernando	14	10	27	20	23	54	3				1		1	
Hillsboro	304	114	265	128	418	214	81	6		6	16		26	
Holmes	57	3	13	2	100	48	1			1			2	1
Jackson	122	117	36	6	211	200				7	5		6	

Jefferson	17	75	3	6	32	119								1	2
Lafayette	64	2	9	4	58	40	1					3		3	
Lake	45	17	14	4	46	71	6							2	
Lee	48	5	15	5	39	13						2		1	
Leon	16	44	15	8	30	204								2	
Levy	60	43	19	17	65	97	1					1		1	
Liberty	16	19	0	1	13	26									
Madison	28	89	18	10	100	111								1	
Manatee	122	11	40	8	56	25	1					1			
Marion	64	165	43	27	131	248	2					3		3	
Monroe	488	254	292	182	174	83	53					18		1	
Nassau	42	91	49	122	71	89	26					4		7	
Orange	87	78	87	18	184	99	18					4		4	
Osceola	72	12	28	6	35	15	3					1		4	
Pasco	62	4	25	11	19	11	1					1		4	
Polk	82	13	50	18	120	62	7					13		5	
Putnam	123	132	75	46	137	83	7					7		5	
Santa Rosa	68	15	24	5	110	60	2					10			
St. Johns	134	69	53	18	63	60	8					3		8	
St. Leon	90	37	14	6	42	30						3		2	
Sumter	37	17	13	11	150	92	2					2		1	
Suwannee	23	5	4	0	61	39						1		2	
Taylor	143	91	69	32	91	102	4					2		10	
Volusia	43	22	4	0	29	38						2		3	
Wakulla	56	21	22	4	87	51	2					4		2	
Walton	143	29	28	6	118	63	1					1		4	
Washington	4533	2921	2269	1656	4254	4156	456	18				3		2	
Total	4533	2921	2269	1656	4254	4156	456	18	129	155	38	243	9		